

## Medical Examiner's District

Serving Tarrant, Denton, Johnson, & Parker Counties



2016 ANNUAL REPORT

# Accredited by:



Accreditation Council for Graduate Medical Education (ACGME)



American Society of Crime Laboratory Directors/ Laboratory Accreditation Board (ASCLD/LAB) certificate numbers *ALI-348-T* and *ALI-012-C* 



National Association of Medical Examiners (NAME)

# Tarrant County Medical Examiner and Forensic Science Laboratories

200 Feliks Gwozdz Pl., Fort Worth, TX 76104-4919 Tel.: (817) 920-5700 | Fax: (817) 920-5713

http://access.tarrantcounty.com/en/medical-examiner.html

# From the Office of the Tarrant County Chief Medical Examiner

henever we are called upon to assist, even if it is outside our defined jurisdiction, beyond the scope of our duties, or otherwise removed from our responsibilities under the law, it is our general policy to help people reach the appropriate person or agency who can assist them. This is not only our philosophy, but our commitment to those we serve.

The primary purpose of the Tarrant County Medical Examiner's Office is to assist the public and law enforcement in determining the cause and manner of death whenever death occurs without medical attention, from unnatural causes, or in the wake of violence. We are proud and grateful to be able to carry out our mission using state of the art laboratory and forensic science facilities.



Sincerely,

Dr. Nizam Peerwani

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Chief Medical Examiner

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# **About Us**

riginally established in 1965, the Tarrant County Medical Examiner's Office today serves four counties—Denton, Johnson, Parker, and Tarrant—with a total district population exceeding 2.8 million. As the district continues to grow, the Tarrant County Medical Examiner's Office remains committed as ever to providing the highest quality of service to the loved ones of each decedent and to the legal system.

As the district's population has boomed, so too have advances in the field of forensic science and its companion subjects of anatomy, physiology, chemistry, and biology. The staff at the Tarrant County Medical Examiner's Office understand the need to keep up with these exciting developments and they routinely apply their knowledge in these areas to the science of determining the cause of death.

In this endeavor, the staff of seven highly trained, board certified forensic pathologists are aided both by an investigative team staffed round-the-clock and a full complement of support services, including human identification, toxicology, criminalistics, and forensic anthropology.





The wealth of information available at the office and our staff's passion to educate combine regularly to create knowledge-sharing opportunities like the Tuesday Morning Forensic Rounds, the annual Current Trends in Forensic Science conference, and periodic training sessions with Physicians for Human Rights. We also provide advanced forensic training at the International Forensic Science Center to scholars from abroad. Members of the staff are frequently invited to provide services, give lectures, and perform consultations both nationally and internationally.

Our staff's outstanding qualifications, our state-of-the-art equipment, our strict compliance with statutes and regulations, and our accreditation by both the National Association of Medical Examiners and the American Society of Crime Laboratory Directors/Laboratory Accreditation Board all help make the Tarrant County Medical Examiner's Office one of the premier medical examiner offices in the nation.

With this report, we aim to impart an appreciation for the depth of our commitment to deliver excellent quality and service. Every day presents new challenges for us, but we are always seeking to develop and implement new services and procedures in order to better serve you and the community.

# Frequently Asked Questions

### What is a Medical Examiner case?

Article 49.25 of the Code of Criminal Procedure, State of Texas clearly defines which cases fall under the jurisdiction of medical examiners. Medical examiner cases include sudden, unexpected, violent, unnatural, unattended and other deaths "affecting the public interest."

### What are your business hours?

The Tarrant County Medical Examiner District Office serves the public from 8:00 am to 4:30 pm Monday through Friday, excluding County and Federal holidays. Our contact information is:

Tarrant County Medical Examiner's Office
200 Feliks Gwozdz Pl., Fort Worth, TX 76104-4919
(817) 920-5700
http://access.tarrantcounty.com/en/medical-examiner.html

The District includes three other counties with satellite offices:

### **Denton County**

535 South Loop 288, Suite 1132, Denton, TX 76205-4502 (940) 349-2870; (972) 434-8833

http://dentoncounty.com/Departments/Health-Services/Health-Department/ Medical-Examiner.aspx

### **Johnson County**

103 S Walnut Street, Cleburne, Texas 76033 (817) 558-2245

http://www.johnsoncountytx.org/departments/medical-examiner

### **Parker County**

129 Hogle Street, Weatherford, Texas 76086 (817) 594-3213; (800) 233-3732 <a href="https://parkercountysheriff.net/contact-us/">https://parkercountysheriff.net/contact-us/</a>

# Do I make complaints to your office about a doctor I am having trouble with?

**No.** The Texas Medical Board is responsible for complaints regarding physicians. Please visit their website at <a href="http://www.tmb.state.tx.us/page/place-a-complaint">http://www.tmb.state.tx.us/page/place-a-complaint</a>. If you have a complaint about our staff please feel free to call us at **(817) 920-5700**, extension **8330**, to speak with our Administrative Director.

### What is an autopsy?

An autopsy is a dignified surgical procedure that provides a systematic examination of the body of a deceased person by a qualified physician. All the physicians performing autopsies at Tarrant County Medical Examiner's District are certified by the American Board of Pathology in anatomic pathology and forensic pathology. During the procedure, a body is inspected for the presence of disease or injury, and minimal specimens of the vital organs and/or body fluids may be taken for further analysis. The internal organs and the brain are examined, then replaced in the body for burial.

# Does the law require the medical examiner to perform an autopsy on every reported death?

**No.** The law only stipulates that the medical examiner shall perform an "inquest", or inquiry into death. It is left up to the discretion and learned judgment of the medical examiner to perform an autopsy in cases affecting the public interest. In only about one-fifth of the cases investigated by the medical examiner is an autopsy deemed necessary. In some cases, the medical examiner may perform a limited or partial autopsy; this is allowed by the statute.

### Does the family pay for any medical examiner services?

**No.** These are statutory examinations and families pay nothing for the medical examiner services or for the transportation of remains to the Central Morgue for examination. Families may be billed by the funeral home for transportation to the funeral home they select after completion of the examination.

### How long does an autopsy take?

A standard forensic autopsy will take two to three hours. Complicated medical cases or cases of traumatic deaths with multiple injuries can take longer in order to fully document all observations.

### What if objections to an autopsy are raised?

When family members object to an autopsy based on religious beliefs, cultural traditions, or other deeply-held convictions, every effort to honor the objection will be made. However, if the public responsibility cannot be fulfilled without performing an autopsy, or at least a limited autopsy, the family will be provided an opportunity to be represented by legal counsel and to have their objection presented to a judge before the autopsy is performed, whenever possible.

### Are tests for drugs and alcohol performed?

In all cases investigated by the medical examiner, including those in which autopsies are not conducted, fluids may be taken for toxicological tests and DNA profile. The results of these tests are often important factors in being able to determine the cause and manner of death. Not all cases will receive toxicological testing, especially if such testing will not influence the cause or manner of death.

### Can a medical examiner case still be an organ or tissue donor?

Yes. Once family members have expressed interest, the medical examiner will review the request with the organ bank. Organs are generally harvested from a heart-beating donor only in a hospital setting. Tissues, including skin, bones, and corneas may be harvested at the medical examiner's office. In the vast majority of cases, the medical examiner will impose no restrictions on organs and tissues harvested with the written consent of next of kin.

### What if no one claims the body on a Medical Examiner's case?

The law provides for burial or cremation when no relative claims the body. These matters are handled through the county's social services department:

### **Tarrant County Human Services**

1200 Circle Dr., Suite 200, Fort Worth, TX 76119 Open Monday-Friday 8:00 a.m.-3:30 p.m. (817) 531-5620

http://access.tarrantcounty.com/en/human-services.html

### When is the body released?

A body is released to a mortuary or crematory once the examination is complete and the family has designated an arrangement for burial or cremation. Family members may contact the Tarrant County Medical Examiner's Office at (817) 920 -5700 to inform us of their selection of a funeral home. The family must then instruct the funeral home to call us for release of the body.

Bodies brought to the Tarrant County Medical Examiner's Office are generally ready for release to a funeral home within 24 hours. Only in rare cases are bodies held for legal purposes. Upon request, the release of remains may be expedited in order to honor the religious, cultural, or other beliefs of the family.

### Can we view the body?

**No.** Our office does not have facilities for the viewing of bodies. Please contact the funeral home if you wish to view the body.

### Do I have to identify my loved one's body?

If identification is required, the family will be contacted by a representative of the Tarrant County Medical Examiner's Office. If your loved one is missing and you have reason to suspect that their body may be among our cases, please contact us at (817) 920-5700.

### What happens to clothing and personal items?

Unless it is identified as evidence, all clothing and personal items held by the medical examiner are released with the body to the funeral home or crematory. Any item identified as evidence is either retained for further testing and examination or turned over to the investigating law enforcement agency; all other personal items are returned to the family. For questions concerning these items, please contact the office at (817) 920-5700.

### Does the Medical Examiner's Office ever keep parts of the body?

In all cases in which an autopsy is performed, the medical examiner will biopsy and retain a small piece of tissue in order to study the organ histologically. Occasionally, a whole organ (such as the brain or the eyes) may be retained for neuropathological examination. If the next of kin desires to have these tissues returned to the funeral home after such testing is complete, please contact us (817) 920-5700 to make this request.

### What kinds of reports are produced?

The Tarrant County Medical Examiner produces at least two, and generally three, reports for each case:

- 1. The physician's examination report (with or without body diagrams)
- 2. The report of death investigation
- 3. The toxicology report (if toxicological testing was performed)

Depending on the complexity of the case there may be other reports, including bacterial/viral culture, special chemistry, heavy metal and other poisons, anthropology, human identification, criminalistics, etc.

# Are my loved one's reports and test results protected under the Health Insurance Portability and Accountability Act (HIPAA)?

**No**. Records generated by the Medical Examiner in the performance of his duties are subject to the <u>Texas Public Information Act</u>, which requires that citizens have access to information on governmental action. This transparency provides Texans with a better understanding of how their government works and, when necessary, enables them to hold their public officials accountable.

Specifically, <u>Section §552.021</u> of the act allows public access to information that is written, produced, collected, assembled, or maintained under a law or ordinance, or in connection with the transaction of official business. Under this statute, all written records generated by the Tarrant County Medical Examiner's Office are public records and may be released upon request to any citizen. Note that death scene photographs and postmortem examination photographs are *not* subject to release under this statute.

### How soon can I have the death certificate?

Effective 2007, the Texas Health and Safety Code, Section §193.005 requires medical certifiers on a death certificate to submit the medical certification and attest to its validity using an electronic process approved by the State Registrar. Additionally, the Health and Safety Code Section §193.003 requires that the medical examiner complete this medical certification not later than five days after receiving the death record.

In the majority of medical examiner cases, the exact cause of death will be pending further testing or investigation. In these cases, the medical examiner files a "pending" death certificate. This pending death certificate is then amended once the case is complete and a cause and manner of death have been determined.

Once the death record has been filed by the funeral home, certified copies of the death certificate can be obtained from the funeral home or the County Clerk. County Clerk contact information for all counties participating in the Tarrant County Medical Examiner's District is provided below:

### **Denton County**

1450 E. McKinney St., Denton, TX 76202-2187 (940) 349-2018

http://dentoncounty.com/Departments/County-Clerk.aspx

### **Johnson County**

P.O. Box 1986, Cleburne, Texas 76033 (817) 202-4000

http://www.johnsoncountytx.org/government/county-clerk

### **Parker County**

P.O. Box 819, Weatherford, Texas 76086 (817) 594-7461

http://www.parkercountytx.com/index.aspx?NID=105

### **Tarrant County Vital Statistics**

200 Taylor St., Rm. 301, Fort Worth, TX 76196-2000 (817) 884-1550

http://access.tarrantcounty.com/en/county-clerk.html

### How long does it take to complete a report?

The <u>Texas Health and Safety Code</u>, <u>Section §671.012</u>, requires that a designated physician who performs an autopsy provided for by state law shall file the autopsy report not later than the 30th day after the date of autopsy, provided that required testing can be completed within that time. Depending on the complexity of the case and the number of postmortem tests ordered, a report may take up to 12 weeks or more before being completed.

### Will the next of kin automatically receive copies of the reports?

**No**. As we recognize that some families will not want to receive copies of the reports, it is necessary for the legal next of kin desiring this information to contact our office, request the report in writing, and confirm their mailing address. The reports will then be sent upon completion of the case. Only one copy of the report will be sent free of charge.

Families interested in obtaining a copy of the report should submit a written request to the Records Custodian. For fastest processing, requests should be emailed to <a href="mailto:TCMErecords@tarrantcounty.com">TCMErecords@tarrantcounty.com</a>. If submitting a records request by mail, please use the following address:

### **Tarrant County Medical Examiner's Office**

Attn: Records Custodian 200 Feliks Gwozdz Pl. Fort Worth, TX 76104-4919

### Who can get copies of the reports?

Documents are routinely provided to law enforcement, the district attorney, special government agencies, and the hospital providing treatment at the time of death. One copy of the examination report, investigative findings, and toxicology report will be provided at no cost to the immediate next of kin upon written request.

As discussed in the earlier question, "Are my loved one's reports and test results protected under the Health Insurance Portability and Accountability Act (HIPAA)?," Section §552.021 of the Texas Public Information Act also mandates that our records be made available to any citizen upon request.



### Can I get copies of the photos of my deceased relative?

**Yes.** Scene photographs and/or postmortem examination photographs may be released upon presentation of a properly executed medical release or 'next of kin' letter, which must contain all of the following elements to be considered valid:

- 1. The requestor's full name, address, and contact information
- 2. A statement indicating the requestor is the nearest legal next of kin and providing his/her relationship to the decedent
- 3. The specific information the requestor is seeking (e.g., all autopsy and/or scene photographs)
- 4. The requestor's notarized signature affixed to the letter
- 5. A copy of the requestor's driver license

Non-family members can make a request for the scene and autopsy photographs upon presentation of a properly executed and notarized medical release from the legal next-of-kin. All requests received from either family or non-family members will be reviewed on a case-by-case basis.

### What if the next of kin cannot afford the costs of the funeral?

An application for indigent cremation may be made with the **Tarrant County Human Services Department** (see page 9 for contact information). Proof of indigent status may be required. Tarrant County Human Services is only able to provide assistance to families whose loved one(s) have died within Tarrant County. A funeral home may assist the family with the application process for the county cremation program.

### What is required for cremation?

The <u>Texas Health and Safety Code</u>, <u>Section §716.004</u> prohibits a crematory establishment from cremating human remains within 48 hours of the time of death indicated on the death certificate, unless the waiting period is waived in writing by (1) the medical examiner of the county in which the death occurred or (2) a court order. In compliance with this statute, the medical examiner has established a policy outlining the process of requesting a waiver under Subsection (a) during regular business hours and outside of regular business hours, including weekends and holidays.

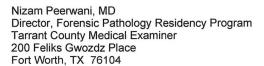
In all other cases, after the mandatory waiting period the crematory is required to obtain a permit from the county medical examiner. If the death is not a medical examiner's case, the Medical Examiner requires the funeral home to provide a death certificate before the Medical Examiner can issue a cremation permit.

# Accreditations

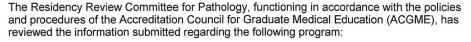
Accreditation Council for Graduate Medical Education

515 North State Street Suite 2000 Chicago, IL 60654

Phone 312.755.5000 Fax 312.755.7498 www.acgme.org 3/10/2016



Dear Dr. Peerwani,



Forensic pathology

Tarrant County Medical Examiner Program
Tarrant County Medical Examiner's Office
Fort Worth, TX

Program 3104822087

Based on the information available to it at its recent meeting, the Review Committee accredited the program as follows:

Status: Continued Accreditation Maximum Number of Residents: 1 Effective Date: 02/04/2016

The Review Committee commended the program for its demonstrated substantial compliance with the ACGME's Program Requirements and/or Institutional Requirements without any new citations.

The ACGME must be notified of any major changes in the organization of the program. When corresponding with the ACGME, please identify the program by name and number as indicated above. Changes in participating sites and changes in leadership must be reported to the Review Committee using the ACGME Accreditation Data System (ADS).







### American Society of Crime Laboratory Directors Laboratory Accreditation Board

declares to all Advocates of Truth, Justice and the Law that the management and technical operations of the

### Tarrant County Medical Examiner's Office Forensic Laboratory Services Breath Alcohol Calibration Program

200 Feliks Gwozdz Place Fort Worth, Texas 76104

have been found through assessment to meet the requirements of ISO/IEC 17025:2005

"General Requirements for the Competence of Testing and Calibration Laboratories" the ASCLD/LAB-International Supplemental Requirements for Breath Alcohol Calibration Laboratories: 2007

and all other requirements of the

### ASCLD/LAB-International

program, and is granted this

### **Certificate of Accreditation**

in the field of

### **Forensic Science Calibration**

for the categories of calibration listed on the corresponding Scope of Accreditation

Renee Romero, ASCLD/LAB Chair

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Pamela L. Bordner, Accreditation Program Manager

Troy Hamlin, Accreditation Program Manager

Certificate Number

ALI-012-C

granted this

17th day of June, 2014

which expires on the

16th day of June, 2019



# **American Society of Crime Laboratory Directors Laboratory Accreditation Board**

declares to all Advocates of Truth, Justice and the Law that the management and technical operations of the

### Tarrant County Medical Examiner's Office Forensic Laboratory Services

200 Feliks Gwozdz Place Fort Worth, Texas 76104

have been found through assessment to meet the requirements of ISO/IEC 17025:2005

"General Requirements for the Competence of Testing and Calibration Laboratories" the ASCLD/LAB-International Supplemental Requirements for Testing Laboratories: 2011 and all other requirements of the

### ASCLD/LAB-International

program, and is granted this

### **Certificate of Accreditation**

in the field of

### **Forensic Science Testing**

for the categories of testing listed on the corresponding Scope of Accreditation

There nomero

Sohn K. Maune

Jennea V. Willet

Troy Hamlin, Accreditation Program Manager

Certificate Number

**ALI-348-T** 

granted this

17th day of June, 2014

which expires on the

16th day of June, 2019



# NATIONAL ASSOCIATION OF MEDICAL EXAMINERS

Grants Full Accreditation

Tarrant County Medical Examiner Office - Fort Worth, Texas

Inspected by and meets the Standards, Inspection, and Accreditation Criteria established by the National Association of Medical Examiners for providing and operating an effective Medicolegal Death Investigative System

Accreditation is granted for the period January 8, 2015 to January 8, 2020

GIVEN THIS 1\* day of June, 2015

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Secretary-Treasurer

Bak eway MID.

Chairman of Inspections Committee

# **History**



The Tarrant County Commissioners' Court establishes the Tarrant County Medical Examiner's Office. T.C. Terrell, M.D. is named Chief Medical Examiner.



Feliks Gwozdz, M.D. is named Chief Medical Examiner.



After Dr. Gwozdz's unexpected death, Nizam Peerwani, M.D. is appointed Chief Medical Examiner.



The first countywide central morgue is established on the campus of the Texas College of Osteopathic Medicine (now University of North Texas Health Science Center).



Toxicology and histology laboratories are added; shortly afterwards, forensic dentistry is added to the office to assist in human identification.



Parker County officially joins the Medical Examiner's Office, creating the Tarrant County Medical Examiner's District.



Denton County joins the Tarrant County Medical Examiner's District; the Medical Examiner's Office moves into a new, state-of-the-art facility at 200 Feliks Gwozdz Place, renamed in honor of the late Dr. Gwozdz.





The TCME District provides the health scene investigation and medical examiner services for McLennan County in the aftermath of the Branch Davidian incident at Mt. Carmel, Texas.



A full-time, dedicated Forensic Anthropologist position is filled, making the TCME District the only such office in Texas with a full-time Forensic Anthropologist on staff.



The Human Identity Section is established at the TCME District, comprising a Forensic Odontologist, a Forensic Anthropologist, and a Latent Print Fingerprint Examiner.



Johnson County joins the Tarrant County Medical Examiner's District.



Construction is completed on new building expansion.



Renovation of the old building is completed, expanding administrative areas and classroom facilities.

# **Staff Photos**







Reza Alaeddini



Dana Austin



Rachel Beck



Jamie Becker



Becky Beshay



John Briggs



Charles Clow



Robert Corley



Christina Coucke-Garza Christina Danforth





Susan Daniel



Glynn Dill



Joe D. English



ShaVonda K Epps



Cynthia Esparza



Kyle Finney



Michael Floyd



Richard Fries



Dayna George



Tasha Greenberg



Esther Gutierrez



Vicki Hall



Kristen Hammonds





# **Departments**

### **Medical Examiners**

Nizam Peerwani, M.D. *Chief Medical Examiner* 

Marc A. Krouse, M.D. *Deputy Chief Medical Examiner* 

Susan J. Roe, M.D. Deputy Medical Examiner

Tasha Z. Greenberg, M.D. Deputy Medical Examiner

Richard C. Fries, D.O. *Deputy Medical Examiner* 

Denika Adams, D.O. Deputy Medical Examiner

Barrie Miller, M.D. Forensic Fellow

Administration

Nizam Peerwani, M.D. *Chief Medical Examiner* 

Ronald L. Singer, M.S. *Technical & Administrative Director* 

D. Chris Heartsill, B.S. *Quality Control Manager* 

Tracye Poirier, M.B.A. Business Manager

Carol A. Lawson Exec. Asst./Public Information Officer

Dayna L. George Bookkeeper

**Human Identification Laboratory** 

Roger Metcalf, D.D.S. *Chief of Identification Services* 

Dana Austin, Ph.D. Senior Forensic Anthropologist

ShaVonda Epps Latent Fingerprint Examiner

Histology

Mike Smith, B.S. Forensic Histotechnician

Joe D. English, Jr. Forensic Histotechnician

### Forensic Death Investigation

### **Tarrant County Investigations**

Michael Floyd, B.S. *Chief Forensic Death Investigator* 

John Briggs Supervisory Investigator

Jimmy McDonald Forensic Death Investigator II

Larry Steffler Forensic Death Investigator II

Stephen White Forensic Death Investigator II

Robert Corley Forensic Death Investigator I

Kyle Finney, B.A. Forensic Death Investigator I

Michael Pollard, B.A.S. Forensic Death Investigator I

Amy Renfro, B.S. Forensic Death Investigator I

Jeff Honeycutt Forensic Death Investigator I

Jamie McKinney Investigative Clerk

Tracy Vancil, B.S. *Investigative Clerk* 

Christina Danforth Investigative Clerk

Rachel Beck Investigative Clerk

**Denton County Investigations** 

Troy Taylor, B.S. Senior Forensic Death Investigator

Bill Mills, Jr., B.S. Forensic Death Investigator

Robert Murphy Forensic Death Investigator

Julie Carriker, R.N. Forensic Death Investigator

Terry Martin, B.A. Forensic Death Investigator

Jennifer Hernandez, B.S. Forensic Death Investigator

Lindsay Hendrix PT Forensic Death investigator

### Forensic Death Investigation continued

### **Johnson County Investigations**

Gary Morris Senior Forensic Death Investigator

Liesl Hoover Forensic Death Investigator

Jamie Smith Forensic Death Investigator

Cassie Clewis Forensic Death Investigator

Heather Brasier Forensic Death Investigator

Laya Wilkerson *Investigative Clerk* 

### **Parker County Investigations**

Bryan Wright Senior Forensic Death Investigator

Kevin Lanham Forensic Death Investigator

Rick Clark Forensic Death Investigator

Bob Presney Forensic Death Investigator

### Forensic Chemistry and Toxicology

Robert Johnson, Ph.D. Chief Toxicologist

Aria McCall, B.S. Senior Toxicologist/Technical Lead

Beryl Landry, B.S. Senior Forensic Toxicologist

Connie Lewis, B.S. Senior Forensic Toxicologist

Cheryl Wheeler, B.S. Senior Forensic Toxicologist

Leanne Hazard, B.S. Senior Forensic Toxicologist

Katie Scott, B.S, Forensic Toxicologist

John Harris, M.S. Sr. Forensic Chemist/Technical Lead

Christina Coucke-Garza, M.S. Senior Forensic Chemist

Mark Fondren, M.S. Senior Forensic Chemist

Michelle O'Neal, B.S. Senior Forensic Chemist

Sarah Skiles, B.S. Senior Forensic Chemist

### Morgue and Evidence Services

Traci Wilson Director of Morgue/Evidence Services

Ronnie Redic Senior Autopsy Technician

Rufus Glynn Dill Autopsy Technician

Cynthia Esparza Autopsy Technician

Esther Gutierrez Autopsy Technician

Burshauna Hill Autopsy Technician

Marc Smiley Autopsy Technician

LeRon Warren Autopsy Technician

Christopher White Autopsy Technician

### **Criminalistics**

Susan Howe, D.V.M., Ph.D. *Crime Laboratory Director* 

Constance Patton, B.S. DNA Technical Lead, CODIS Admin.

Peggy Le, B.S. Senior Forensic Biologist

Heather Kramer, M.S. Forensic Biologist/Backup CODIS

Kira Tillman, B.S. Forensic Biology Specialist

Rebecca Klein, M.S. Forensic Biologist

Reza Alaeddini, Ph.D. Senior Criminalist (Project Position)

Vicki Hall, M.S. Sr. Trace Analyst/Trace Tech. Lead

Anne Koettel, M.S. Senior Trace Analyst

Jamie Becker, B.S. Sr. Criminalist, Firearms & Tool Marks

Charles M. Clow, M.A. Sr. Criminalist, Firearms & Tool Marks

William Walker Latent Fingerprint Examiner

Larry Reynolds Forensic Photographer

### Secretarial Services

Carol A. Lawson

Cathy Adolph

**Becky Beshay** 

Susan Daniel

Ayman Itani

Deatra Keele

Tamikka Nelson

Christie Smith, A.A.S.

Tarr Jae Wilson

Exec. Asst./Public Information Officer

Medical Secretary/Transcriptionist

Medical Secretary/Transcriptionist

Medical Secretary/Transcriptionist

Records Secretary

Medical Secretary/Transcriptionist

Medical Secretary/Transcriptionist

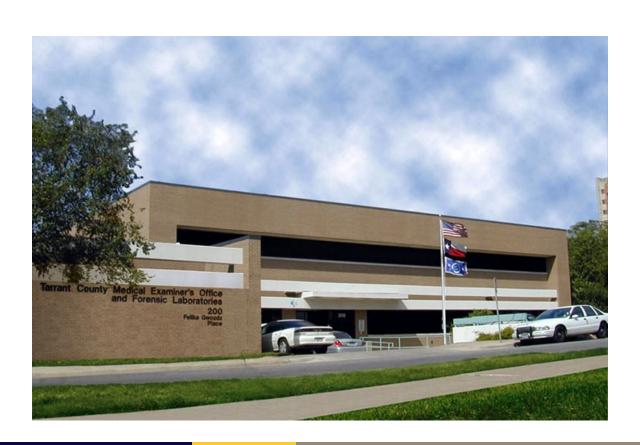
Vital Records Coordinator

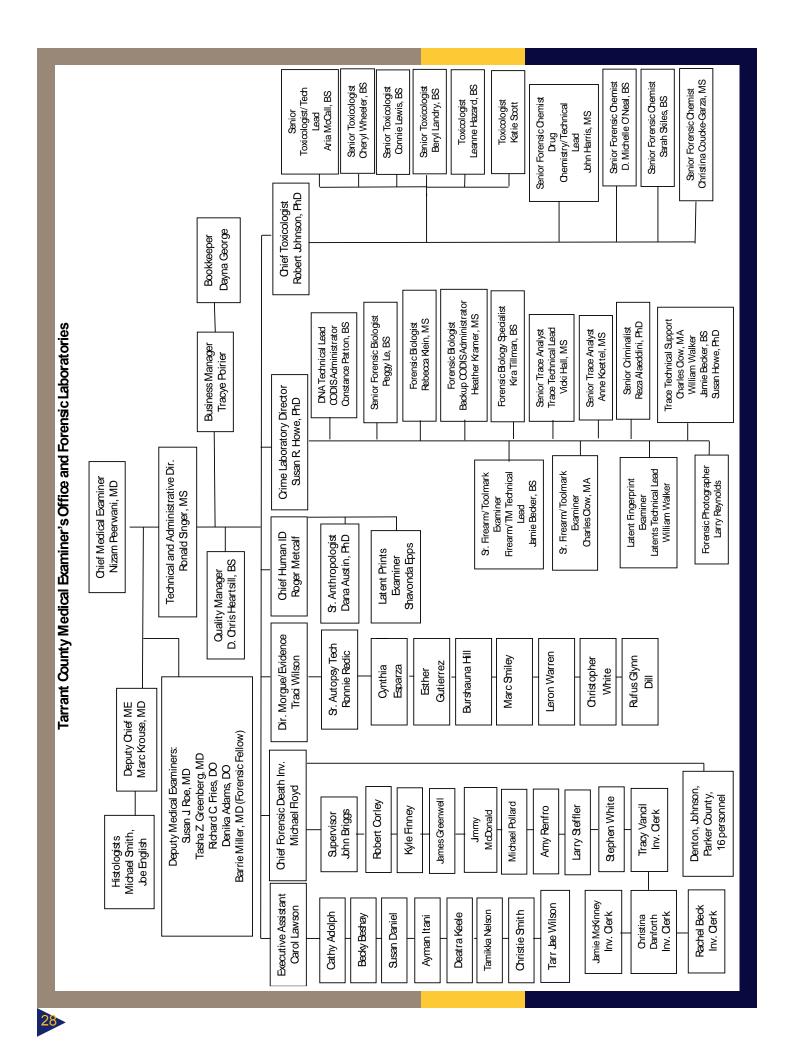
Records Manager

### **Facility Maintenance**

Jun Lumadilla

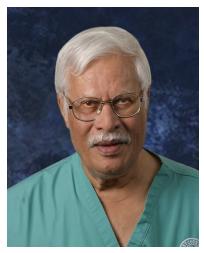
Building Superintendent





# **Medical Examiners**

### Nizam Peerwani, M.D., Chief Medical Examiner



Dr. Peerwani is a graduate of the American University of Beirut (M.D. in 1976). He completed his residency in pathology at Baylor University Medical Center in Dallas, Texas, and is board certified in Anatomic, Clinical, and Forensic Pathology.

Currently, Dr. Peerwani is the Chief Medical Examiner for Tarrant, Denton, Johnson, and Parker counties in the state of Texas, and has held this position since July 1979. He is actively involved in forensic death investigation for his jurisdiction and routinely testifies in both civil and criminal trials. He has also served as an Associate Professor of Pathology at UNT Health Science Center in Fort Worth from 1979 to 2004 and on the editorial board of the *American Journal of Forensic Medicine and Pathology* from 1992 to 2009, as well as on the National Association of Medical

Examiner's Accreditation Committee from 1990 to 1995. He is an advocate of child safety and served on the first Texas Child Fatality Review Committee as an expert in forensic medicine from 1995 to 2000. His major investigations include the Delta Airline Flight 1141 crash at the Dallas-Fort Worth International Airport in 1988, the mass killings and fire deaths in McLennan County in 1993, and the Wedgewood Baptist Church mass shooting incident in September 1995 in Fort Worth, Texas.

In 1993, he led his team to investigate the mass killing and fire deaths at Mt Carmel, in the outskirts of Waco in McLennan County, after a long siege of David Koresh's religious cult compound by the Federal Bureau of Investigation, and later testified at the federal trial in San Antonio, Texas.

As an advocate for human rights, he serves as an expert consultant for Physicians for Human Rights. He has completed assignments for this organization in Rwanda, Indonesia, Iraq, Afghanistan, Israel, and Libya, investigating genocide and human rights violations under the auspices of the United Nations Tribunal. He testified in the genocide trial of George Rutaganda at the International Criminal Tribunal for Rwanda (United Nations) in Arusha, Tanzania. Additionally, he was the advance team member in the war crimes investigation in the Srebrenica killings in Bosnia in 1995 and set up a temporary morgue facility in Tuzla, Bosnia-Herzegovina. He also investigated the killings of 34 inmates at the Miquel Castro-Castro Prison by the National Peruvian Police in March 2001 and later testified at Inter-American Court of Human Rights in 2006 in San Salvador. In 2015, he and his colleagues led the investigation at the Tarrant County Medical Examiner's Office on behalf of Physicians for Human Rights and Human Rights Watch, and filed a report on the investigation of torture and killings in the Syrian Detention Camps by the current regime of President Bashar Assad.

Appointed by Governor Rick Perry in 2009, Dr. Peerwani currently serves on the Texas Forensic Science Commission. He also serves on the expert panel of Texas State Fire Marshal's Office.

### 

### Marc A. Krouse, M.D., Deputy Chief Medical Examiner



Dr. Krouse graduated in 1977 from the University of Texas Southwestern Medical School, then and now a major center of medical research and patient care, in Dallas, Texas. Dr. Krouse entered a four-year residency in Anatomic and Clinical Pathology at Baylor University Medical Center in Dallas. During residency, in 1978, he began working part time at the Tarrant County Medical Examiner. After Dr. Gwozdz's sudden death in 1979, he was sworn in as Medical Examiner along with Dr. Nizam Peerwani. He completed residency in 1981. Dr. Krouse was certified by the American

Board of Pathology in Anatomic and Clinical Pathology in 1981 and earned Special Competency in Forensic Pathology in 1984.

Dr. Krouse is a Fellow of the American Academy of Forensic Sciences and a Member and past Board of Directors member of the National Association of Medical Examiners. He has served on a number of committees in both organizations. He was Program Director of the 1993 annual meeting of NAME. He has made many peer-reviewed platform and poster presentations in annual meetings of both organizations. Dr. Krouse has taught medical and graduate students of the University of North Texas Health Sciences Center in Fort Worth, pathology and other residents from numerous hospital programs, attorneys, police, fire and paramedic workers, nurses and nursing students and the public. A program teaching recovery of buried bodies and evidence has been a part of this teaching effort. Dr. Krouse worked with US Forest Service and other archaeologists and anthropologists to analyze skeletal pre-Columbian human remains at the Museum of Northern Arizona in Flagstaff, Arizona. A continuing education program has presented in annual forensic sciences updates for more than a decade.

Dr. Krouse has been a supporter and member of a number of community programs. He worked with the Boy Scouts as an adult leader in the local troop and district. He has served on the Board of the Boys and Girls Clubs of Fort Worth and volunteered for many fundraisers for community organizations and foundations.

### 

### Susan J. Roe, M.D., Deputy Medical Examiner

Dr. Roe graduated from the University of Texas at Arlington with a Bachelors of Science in Nursing (1977) and from the University of Texas Health Science Center at Houston Medical School with an M.D. (1983). In 1988, she completed her post graduate training in Anatomic Pathology, Clinical Pathology, and Forensic Pathology at Indiana University, Hennepin County Medical Center, and the Hennepin County Medical Examiner's Office.

Dr. Roe is board certified in anatomic, clinical, and forensic pathology. She worked as a Forensic Pathologist at the Hennepin County Medical Examiner's Office, the Ramsey County Medical Examiner's Office, and the Minnesota Regional Medical Examiner's Office from 1988 through 2011. Additionally, she was a Bush Foundation Medical Fellow, Class of 2003, and worked at the Jesse E. Edwards Registry of Cardiovascular Disease from 2005 through 2011. Dr. Roe joined the Tarrant County Medical Examiner's Office in December 2011 as a Deputy Medical Examiner.

### Tasha Z. Greenberg, M.D., Deputy Medical Examiner



Dr. Greenberg earned her Bachelors of Science in Kinesiology from the University of California—Los Angeles in 1989, after which she attended graduate school at Northwestern University in Chicago, Illinois, where she majored in neuroscience prior to her matriculation to medical school. Upon graduating from the Baylor College of Medicine in 1996, Dr. Greenberg completed her residency in Pathology. Her first year of study was at St. Joseph's Hospital and Medical Center in Phoenix, Arizona, after which she returned to Baylor for the remaining four years, with her final year concentrated on Pediatric Pathology under the tutelage of Edmund

Donoghue, M.D., at the Cook County Medical Examiner's Office.

During her six-year tenure at the Baltimore Medical Examiner's Office in Maryland, Dr. Greenberg was active in child fatality review at the local and state levels. She also conducted lectures and training for local universities as well as the medical examiner's homicide course, speaking primarily on pediatric forensics. In April 2008, Dr. Greenberg accepted the position of Medical Director of the Autopsy Service for the University of Texas Southwestern Medical School at Parkland Medical Center, and in September 2012 she was appointed a deputy medical examiner for the Tarrant County Medical Examiner's Office.

### Richard C. Fries, D.O., Deputy Medical Examiner



After graduating with honors from the University of Texas at Dallas with a Bachelors of Science in Biology (2004), Dr. Fries went on to earn his D.O. from the University of North Texas Health Science Center—Texas College of Osteopathic Medicine in 2008. He completed his residency in Anatomic and Clinical Pathology at the Virginia Commonwealth University Health System, Medical College of Virginia Hospitals.

In July 2012, Dr. Fries accepted a fellowship in Forensic Pathology at the Tarrant County Medical Examiner's Office. After successfully

completing this one-year program, he took and passed the board exam in Forensic Pathology.

Dr. Fries joined the staff of the Tarrant County Medical Examiner's Office in July 2013. He is a member of the American Academy of Forensic Sciences (AAFS) and the National Association of Medical Examiners (NAME).

### **Denika Adams, D.O., Deputy Medical Examiner**



Dr. Adams is a certified Pathologist in both Anatomical and Clinical Pathology and Forensic Pathology, and a licensed physician in both Texas and Illinois. She graduated from Baylor University in 2004 with a Bachelor of Science degree in Forensic Science with minors in both Biology and Chemistry. She attended the University of North Texas Health Science Center – Texas College of Osteopathic Medicine and earned her D.O. in 2009. Dr. Adams completed her residency in Pathology at the University of Texas Health Science Center at San

Antonio in June 2013. She accepted a fellowship at the Dallas County Medical Examiner's Office and completed the program in July, 2014.

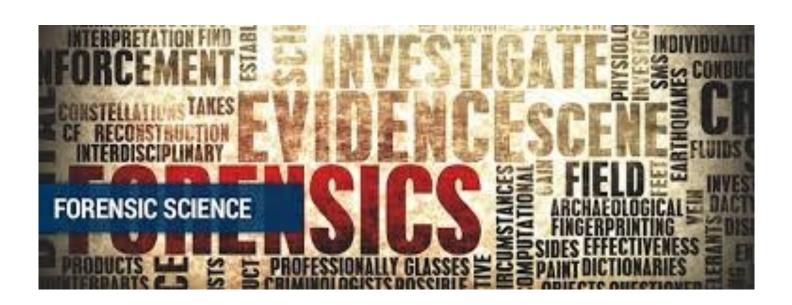
In August of 2014, Dr. Adams began her career as an Assistant Medical Examiner at the Office of the Medical Examiner County of Cook in Chicago, Illinois. During her time at Cook County, she was part of the Cook County Child Death Review Team B and the Cook County Medical Examiners Disaster Response Team, and was a Radiology Quality Assurance/Peer Review Coordinator. In August of 2016, Dr. Adams was appointed to the position of Deputy Medical Examiner at Tarrant County Medical Examiner's Office in Fort Worth, Texas.

### **Barrie Miller, M.D., Forensic Fellow**



Dr. Miller graduated from St. Catherine University in St. Paul, Minnesota with a B.A. in Psychology and Biology, after which she earned a Master of Public Health in Epidemiology from the University of Minnesota School of Public Health. She went on to earn her M.D. from the University of Minnesota Medical School, and subsequently completed her residency in Anatomic and Clinical Pathology at The Ohio State University Wexner Medical Center. She completed a Cytopathology fellowship at the University of Minnesota and was accepted as a fellow

at the Tarrant County Medical Examiner's Office.









# Administration

### **Ronald Singer, M.S., Technical & Administrative Director**



Ronald Singer received his Bachelors of Science from Tulane University and his Masters of Science from Loyola University of New Orleans. A forensic scientist since 1972, he has served as President of the International Association of Forensic Sciences. He is also a Distinguished Fellow and Past President of the American Academy of Forensic Sciences, a Distinguished Member and Past President of the Association of Firearm and Toolmark Examiners, an Emeritus Member and Past Secretary of the American Society of Crime Laboratory Directors, and a member of

numerous other forensic associations and committees. He has been an invited speaker on forensic issues throughout the U.S., Hungary, Bosnia, England, Portugal, Turkey, the Maldives, Sri Lanka, the Czech Republic, Lebanon, and the United Arab Emirates.

Mr. Singer is a recipient of the American Academy of Forensic Sciences Criminalistics Section Outstanding Service award, the Association of Firearm and Toolmark Examiners Member of the Year award, the Gold Medal award of the Mediterranean Academy of Forensic Sciences, and the Distinguished Fellow award from the American Academy of Forensic Sciences.

### D. Chris Heartsill, B.S., Quality Control Manager



Chris Heartsill received his Bachelors of Science in Chemistry from East Central University in 1991. He has been working in analytical chemistry for over twenty years with more than 19 years of forensic toxicology experience, including the areas of human performance forensic toxicology and postmortem forensic toxicology. Prior to coming to Tarrant County in 2013, he served as an analytical chemist, toxicologist, quality manager, and breath-testing technical supervisor.

Chris is currently certified by the American Board of Forensic Toxicology as a Forensic Toxicology Specialist. He is an active member of the Society of Forensic Toxicologists, the Scientific Working Group for Toxicology, and the Association of Forensic Quality Assurance Managers. Chris is also actively involved in the accreditation of forensic laboratories through volunteer activities with the American Society of Laboratory Directors/Laboratory Accreditation Board.

#### **Tracye Poirier, M.B.A., Business Manager**



Tracye Poirier received her Bachelors of Science degree in Chemistry from the University of Texas at Arlington. She came to work here in 2000 as a Senior Forensic Toxicologist. She also served as a Senior Forensic Chemist before assuming her current role as the Business Manager. Her background in the sciences provides her with unique insight into managing a Medical Examiner's office.

Ms. Poirier earned her M.B.A. degree with an emphasis in Strategic Leadership in April 2010 from the University of Dallas. She is a member of the American Academy of Forensic Sciences and the Southwestern Association of Toxicologists.

# **Carol A. Lawson, Executive Assistant/Public Information Officer**



Accepting employment with the Tarrant County Medical Examiner in 2005, Ms. Lawson currently serves as the Executive Assistant to the Chief Medical Examiner. In this role she schedules pathologists for morgue duty, arranges court appearances and professional engagements for the Chief Medical Examiner and his staff, supervises Secretarial Services, and assists families, law enforcement agents, and attorneys with their concerns and inquiries. In addition to these responsibilities, she also serves as

the Public Information Officer of the Tarrant County Medical Examiner's District, fielding questions from the media and releasing information to the public as necessary. Ms. Lawson has reaffirmed her dedication through continued professional development in Public Information Officer awareness, leadership, and influence, as well as training with the FBI-Law Enforcement Executive Leadership Association (FBI-LEEDA).

# Laboratories

#### Susan R. Howe, D.V.M., Ph.D., Crime Laboratory Director



Dr. Howe received a B.S. and a Doctor of Veterinary Medicine degree from the University of Illinois and a Ph.D. in Toxicology from Texas A & M University. A forensic scientist since 1996, she is an active member of the American Academy of Forensic Sciences, the Society of Forensic Toxicologists, and the Southwestern Association of Forensic Toxicologists.

Dr. Howe is board certified in Forensic Toxicology by the American Board of Forensic Toxicology and has published a number of scientific articles in peer-reviewed journals in the field of molecular toxicology.

#### Roger Metcalf, D.D.S., J.D., Chief of Human Identification Services



Roger Metcalf is a graduate of Baylor University and Baylor College of Dentistry. He completed a fellowship in Forensic Odontology at the Center for Education and Research in Forensics at the University of Texas Health Science Center at San Antonio Dental School under Dr. David Sinn. He received his J.D. degree from Texas Wesleyan University School of Law in 2009.

Dr. Metcalf has been a member of the Tarrant County Medical Examiner's Mass Fatality Dental Identification Team since it was established in 1980, and has participated in the identification of victims from the Delta 191 and 1141 crashes at D/FW Airport and from the Mt. Carmel incident in Waco, Texas. Since joining the Tarrant County Medical Examiner's Office in 2004, Dr. Metcalf has supervised the forensic identification of more than 300 unidentified bodies per year.

#### Robert Johnson, Ph.D., Chief Forensic Toxicologist



Dr. Johnson graduated from the University of Oklahoma with a Ph.D. in Analytical Chemistry in 2004. Certified as a forensic toxicologist by the American Board of Forensic Toxicology, he joined the Tarrant County Medical Examiner's Office in 2011. He is active in several professional societies, including the Society of Forensic Toxicologists, the American Academy of Forensic Sciences, and the Southwestern Association of Toxicologists.

Dr. Johnson has published over 50 scientific articles in his career, all of which deal specifically with forensic toxicology.

# Morgue/Laboratory Services

#### **Traci Wilson, Chief of Morgue/Laboratory Services**



Traci Wilson began her employment with the Tarrant County Medical Examiner's Office as a Forensic Autopsy Technician in 1995. Prior to moving to Fort Worth, she had worked in Bossier City, Louisiana as a Forensic Pathologist Assistant. Ms. Wilson attended Northeast Louisiana University Monroe (ULM), where she majored in Business Administration/Business Law.

In 2009, Ms. Wilson assumed the duties of Chief of Morgue/Laboratory Services, in which role she continually develops and implements new policies to streamline recordkeeping and safeguard evidence handling.

# Forensic Death Investigation

#### Michael Floyd, B.S., Chief Forensic Death Investigator Tarrant County

Michael Floyd began working for the Tarrant County Medical Examiner's District in 1990 as a Medical Investigator assigned to Parker County. He transferred to Tarrant County in 1993. In 1997, he was promoted to Senior Forensic Investigator, became the Supervisory Investigator in 2009, and was appointed Chief Forensic Investigator in 2010.

Prior to his employment at TCME, Michael was a Texas-certified EMT-Paramedic for 16 years and spent 35 years as a Texas Peace Officer.

# Troy Taylor, B.S., Senior Forensic Death Investigator Denton County



Mr. Taylor started his career in 1990 at the Denton County Medical Examiner's Office. After multi-year tenures in Denton and Tarrant County, he transferred back to the Denton office in 2003.

Troy teaches medical examiner law, wound patterning, and decomposition changes for intermediate crime scene classes, as well as for basic peace officer certification classes. He has attended medico-legal death investigation training and psychological profiling schools.

In 2007, Mr. Taylor was promoted to Chief Forensic Death Investigator of Denton County.

# Gary Morris Senior Forensic Death Investigator Johnson County



Gary Morris began his service with the Johnson County Medical Examiner's Office as a Reserve Investigator in 2006. He served in several positions with the Johnson County Medical Examiner's Office before advancing to his current position as Chief Forensic Death Investigator, a position he has held since 2011.

Mr. Morris has attended forensic death investigation training in Fort Worth, St. Louis, Arizona, and New York.

# Bryan Wright Senior Forensic Death Investigator Parker County



Bryan Wright began his employment with the Tarrant County Medical Examiner's District shortly after Parker County became the first member of the district system in 1986. Mr. Wright worked as a medical investigator for 13 years and was also a peace officer with the Weatherford Police Department during that time, retiring honorably as a Lieutenant in 2009, having earned a Master Peace Officer certification, among other awards and honors, and having completed 60 college hours. He also worked with and administered the Cross Timbers Narcotics Task Force,

comprised of 18 member law enforcement agencies, during his time as a medical investigator.

Upon his retirement, Bryan was sought out and hired by the Parker County Sheriff's Office due to his extensive experience and background. He has a cumulative thirty years of peace officer experience.

# **Professional Involvement**

#### **Ronald Singer, M.S., Technical & Administrative Director**

Chair, Exhibitor Liaison Committee, American Academy of Forensic Sciences

Member, Editorial Board, Journal of Forensic Sciences

Member, Ethics Committee, American Academy of Forensic Sciences

President (2004-2005), American Academy of Forensic Sciences

Secretary (1983-1986), American Society of Crime Laboratory Directors

President (1995-1996), Association of Firearm and Toolmark Examiners

Chair (2009-2012), Forensic Sciences Foundation

President (2005-2008), International Association of Forensic Sciences

Member, North Carolina Forensic Science Advisory Board

Award of Merit, American Academy of Forensic Sciences

Distinguished Fellow, American Academy of Forensic Sciences

Distinguished Service, Criminalistics Section, American Academy of Forensic Sciences

Emeritus Member, American Society of Crime Laboratory Directors

Distinguished Member, Association of Firearm and Toolmark Examiners

Member of the Year, Association of Firearm and Toolmark Examiners

Gold Medal, Mediterranean Academy of Forensic Sciences

#### D. Chris Heartsill, B.S., Quality Control Manager

Former Member, Alcohol Testing Alliance

President Elect (2002-2003), President (2003-2004), and Immediate Past President (2004-2005), Alcohol Testing Alliance

Lead Assessor (2015-present), American Society of Crime Laboratory Directors— Laboratory Accreditation Board

Technical Assessor (2003-2015), American Society of Crime Laboratory Directors—Laboratory Accreditation Board



Member (2005-2015), Toxicology Discipline Technical Advisory Committee, American Society of Crime Laboratory Directors—Laboratory Accreditation Board

Member, Association of Forensic Quality Assurance Managers in Toxicology

Chair (2012-2015), Quality Control Workgroup; Subcommittee Standards, Practices, and Protocols; Forensic Toxicology Council

Member (2010-2015), Scientific Working Group in Toxicology, Forensic Toxicology Council

Advisor, Quality Control Task Group, Toxicology Subcommittee, Organization of Scientific Area Committees, National Institute of Standards and Technology

Member (2015-present), Administrative Committee; Alcohol, Drugs, Impairment Division of the National Safety Council

Member (2014-present), Executive Board; Alcohol, Drugs, Impairment Division of the National Safety Council

Member (2015-2016), Meeting Host Committee, Society of Forensic Toxicologists

Counselor (2000-2002), Southwestern Association of Toxicologists

President Elect (2002-2003), President (2003-2004), and Immediate Past President (2004-2005), Southwestern Association of Toxicologists

President Elect (2015-2016), Southwestern Association of Toxicologists

Historian, Southwestern Association of Toxicologists

Chair (2006-present), Grant Approval Committee, Southwestern Association of Toxicologists

Member, Texas Association of Crime Laboratory Directors

Regional Award, American Academy of Forensic Sciences

#### Roger D. Metcalf, D.D.S., J.D., Chief of Identification Services

Diplomate, American Board of Forensic Odontology

Diploma in Forensic Human Identification, Faculty of Forensic and Legal Medicine, RCP

President (2015), American Society of Forensic Odontology

Executive Secretary (2015), Forensic Odontology Subcommittee, Organization of Scientific Area Committees, National Institute of Standards and Technology

Chair (2015), Amicus Brief Committee, American Academy of Forensic Sciences

Chair (past), Certification and Examination Committee, American Board of Forensic Odontology

Member (past), Board of Directors, Southwestern Association of Forensic Scientists

#### Susan R. Howe, D.V.M., Ph.D., Crime Laboratory Director

Member (2013-present), Exhibitor Liaison Committee, American Academy of Forensic Sciences

Member (2016), Meeting Planning Committee, Society of Forensic Toxicologists

Co-Chair (2016), Workshop, Society of Forensic Toxicologists

President (2011-2012), Southwestern Association of Toxicologists

Chair (2014-2015), Certification Committee, Texas Association of Crime Laboratory Directors

Member (2015-present), Education Committee, Texas Association of Crime Laboratory Directors

Secretary (2016-present), Texas Association of Crime Laboratory Directors

#### **Jamie Becker, Senior Criminalist, Firearms & Tool Marks**

Member, Ethics Enforcement Procedures Ad-Hoc Committee, Association of Firearm and Toolmark Examiners

Chairperson (1997-1999), Sickness and Distress, Association of Firearm and Toolmark Examiners



- Member (1999-2002), Board of Admissions, Association of Firearm and Toolmark Examiners
- Member (1999-2002), Research and Development Ad-Hoc Committee, Association of Firearm and Toolmark Examiners
- Member (2002), Training Seminar Host Committee, Association of Firearm and Toolmark Examiners
- Treasurer (2002-2005), Association of Firearm and Toolmark Examiners
- Member (2007-2009), Nominating Committee, Association of Firearm and Toolmark Examiners
- Member (1999-2001), Scientific Working Group on Firearms and Toolmarks

#### **Charles Clow, Senior Criminalist, Firearms & Tool Marks**

- Journal Editor (2008-2013), Association of Firearm and Toolmark Examiners
- Board Member (2005-2012), Scientific Working Group for Firearms and Toolmarks
- Best Research Paper (2004), "Cartilage Stabbing with Consecutively Manufactured Knives: A Response to Ramirez vs. State of Florida," National Firearm Examiner Academy
- Distinguished Member Award (2006), Association of Firearm and Toolmark Examiners
- Steve Molnar Award (2012), Outstanding Contributions to the Association of Firearm and Toolmark Examiners Journal
- Walter J. Howe Award (2012), Outstanding Contributions to the Association of Firearm and Toolmark Examiners Journal

#### **Anne Koettel, Senior Trace Analyst**

Member, Publications Committee, American Society of Trace Evidence Examiners

#### Robert Johnson, Ph.D., Chief Forensic Toxicologist

Member (2004-2011), Life Sciences and Biomedical Engineering Branch, Aerospace Medical Association

Fellow (2011-present), American Board of Forensic Toxicology

Member (2014-present), Toxicology Subcommittee, Organization of Scientific Area Committees, National Institute of Standards and Technology

Member (2008-present), Alcohol, Drugs, and Impairment Division, National Safety Council

Member (2013-present), Executive Board; Alcohol, Drugs, and Impairment Division, National Safety Council

Secretary (2014-present), Alcohol, Drugs, and Impairment Division, National Safety Council

Guest Editor (2016), Journal of Analytical Toxicology, Society of Forensic Toxicologists Special Edition

Member (2005-present), Society of Forensic Toxicologists

Member (2011-2014), Membership Committee, Society of Forensic Toxicologists

Member (2009-present), Southwestern Association of Toxicologists

President (2015-present), Southwestern Association of Toxicologists

Superior Accomplishment Award (2010), Office of Aviation Medicine

William E. Collins Publications Award (2006), Office of Aviation Medicine

Charles Tripp Award (2014), Southwestern Association of Toxicologists

James Garriott Award (2013), Southwestern Association of Toxicologists

Excellence in SPE Award (2014), United Chemical

Lloyd Swearingen Outstanding Graduate Student Research Award (2003), University of Oklahoma

#### **Aria McCall, Senior Toxicologist and Technical Lead**

Board Certification (2014-present), American Board of Forensic Toxicology

Member (2015-present), Society of Forensic Toxicologists

Workshop Co-Chair (2016), Society of Forensic Toxicologists

Member (2002-present), Southwestern Association of Toxicologists

Member (2013-present), Membership Committee, Southwestern Association of Toxicologists

#### **Sarah Skiles, Senior Forensic Chemist**

Member, Board of Directors, Alcohol Testing Alliance

Member, International Association of Chemical Testing

Member, Past Board of Directors, Southwestern Association of Forensic Scientists

Member, Southwestern Association of Toxicologists

#### **Christina Coucke-Garza, Senior Forensic Chemist**

Member, Southwestern Association of Forensic Scientists

Chair (past), Scholarship Committee, Southwestern Association of Forensic Scientists

Chair (present), Nominations Committee, Southwestern Association of Forensic Scientists

Member, Southwestern Association of Toxicologists

Treasurer (past), Southwestern Association of Toxicologists

#### **Mark Fondren, Senior Forensic Chemist**

President (2000), Alcohol Testing Alliance

Chairman (2014-present), Examinations, American Board of Forensic Toxicology

Member (2014-present), Executive Board, American Board of Forensic Toxicology

Chairman (2010-2014), Examination, Forensic Toxicology Certification Board

Member (2013-2014), Ethics Committee, Forensic Toxicology Certification Board

Member (2015), Breath Alcohol Task Group Subcommittee, Organization of Scientific Area Committees, National Institute of Standards and Technology

Member (2010-2015), Scientific Working Group for Toxicology

#### **Michelle O'Neal, Senior Forensic Chemist**

- Certified Technical Assessor, American Society of Crime Laboratory Directors/ Laboratory Accreditation Board—International
- Associate Editor (1995-1997), Southwestern Association of Forensic Scientists
- Chairman of the Board (2009-2010), Southwestern Association of Forensic Scientists
- Chairperson (2008-2011, 2015), Floyd E. McDonald Scholarship, Southwestern Association of Forensic Scientists
- Member (1999-2000), Board of Directors, Southwestern Association of Forensic Scientists
- Member (2004-2006), Board of Directors, Southwestern Association of Forensic Scientists
- Member (2013-2015), Board of Directors, Southwestern Association of Forensic Scientists
- President Elect (2007-2008) and President (2008-2009), Southwestern Association of Forensic Scientists

#### **Connie Lewis, Senior Forensic Toxicologist**

Board Certification (2014-present), American Board of Forensic Toxicology

Member (2012-present), Society of Forensic Toxicologists

Member (2007-present), Southwestern Association of Toxicologists

Secretary (2016), Southwestern Association of Toxicologists

James Garriott Award (2014), Southwestern Association of Toxicologists

Excellence in SPE Award (2014), United Chemical

# **Annual Development**

rowth in the responsibilities of the Tarrant County Medical Examiner's District continued throughout 2016. To meet the increased demand for services, **Denika Adams, D.O.**, Deputy Medical Examiner and five new employees were hired. These included **Rebecca Kline**, Forensic Biologist in the DNA Lab; **Reza Alaeddini**, Senior Criminalist in the DNA lab; **Katie Scott**, Toxicology Specialist, **Dayna George**, Bookkeeper and **Becky Beshay**, Medical Secretary/Transcriptionist.

Additionally, a part-time Family Advocate position was created at the Tarrant County Medical Examiner's Office in partnership with Trauma Support Services of North Texas (TSSNT). This position is grant-funded through TSSNT and is presently staffed at the TCMEO by **Kiva T. Harper**. The Family Advocate identifies deaths related to trauma (accidents, homicides, and suicides), and refers the families of these decedents to resources and benefits that may assist them in their grief.

In 2016, the Tarrant County Medical Examiner's Office saw a promotion of Christie Smith who attained an AA Degree, formerly Vital Statistics Secretary to Vital Records Coordinator.

The following pages present statistics, beginning with an overview and progressing to more detailed case data, that demonstrate the increasing needs of the communities we serve and the myriad ways in which these needs were met by the Tarrant County Medical Examiner's District in 2016

# 2016 Statistics

# 2016 Statistical Summary

Reported deaths 11,703

Reported deaths							Τ.
Jurisdiction terminated					8,066	69%	
Jurisdiction accepted					2,979	25%	
within the TCME District			2,979	100%			
scenes investigated	1,407	47%					
outside the TCME District			658	22%			
Bodies brought to facility					3,617	31%	
Medical procedures					3,609	31%	
External examination			1,649	46%			
Partial autopsy			406	11%			
Complete autopsy			1,554	43%			
Deaths certified					2,986		
Natural			1,496	50%			
Accident			852	28.5%			
vehicular	298	35%					
non-vehicular	554	65%					
Suicide			381	12.8%			
Undetermined			92	3.1%			
Homicide			153	5.1%			
Non-human remains			4	0.1%			
No Autopsy			8	0.3%			
Human identification					751	6%	
Successfully identified			751	100.0%			
by observation (visual)	15	2%					
by fingerprints	667	89%					
by odontology	15	2%					
by DNA	10	1%					
by anthropology	16	2%					
by other means	24	3%					
Pending identification			4	0.5%			

# Manner of Death by County



2016 Tarrant County Deaths					
Manner of Death	Cases	%			
Natural	1200	15.3%			
Accidental	637	8.1%			
Suicide	245	3.1%			
Homicide	134	1.7%			
Undetermined	76	1.0%			
Non-human remains	4	0.1%			
Jurisdiction terminated	5572	70.8%			
Total	7868	100%			

2016 Denton C	2016 Denton County Deaths					
Manner of Death	Cases	%				
Natural	153	7.3%				
Accidental	142	6.8%				
Suicide	88	4.2%				
Homicide	15	0.7%				
Undetermined	12	0.6%				
Non-human remains	0	0.0%				
Jurisdiction terminated	1683	80.4%				
Total	2093	100.0%				





2016 Johnson County Deaths					
Manner of Death	Cases	%			
Natural	67	11.4%			
Accidental	35	6.0%			
Suicide	16	2.7%			
Homicide	2	0.3%			
Undetermined	1	0.2%			
Non-human remains	0	0.0%			
Jurisdiction terminated	466	79.4%			
Total	587	100%			

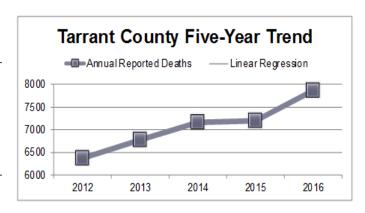
2016 Parker C	ounty Dea	aths
Manner of Death	Cases	%
Natural	69	14.1%
Accidental	38	7.8%
Suicide	32	6.5%
Homicide	2	0.4%
Undetermined	3	0.6%
Non-human remains	0	0.0%
Jurisdiction terminated	345	70.6%
Total	489	100.0%



# Five-Year Trends

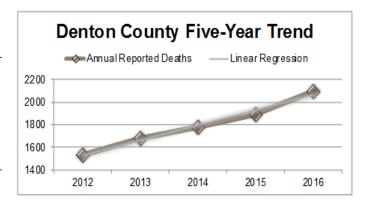
#### Tarrant County, 2012-2016

Manner of Death	2012	2013	2014	2015	2016
Natural	818	900	1006	1060	1200
Accidental	506	513	579	530	637
Suicide	222	222	214	235	245
Homicide	104	127	85	105	134
Undetermined	64	68	75	79	76
Non-human remains	9	13	6	2	4
Jurisdiction terminated	4644	4932	5201	5187	5572
Total	6367	6775	7166	7198	7868



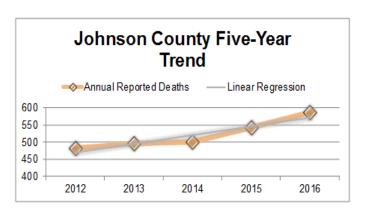
#### Denton County, 2012-2016

Manner of Death	2012	2013	2014	2015	2016
Natural	136	173	163	180	153
Accidental	103	108	103	112	142
Suicide	66	63	60	74	88
Homicide	9	7	7	10	15
Undetermined	7	8	16	11	12
Non-human remains	3	1	0	1	0
Jurisdiction terminated	1206	1317	1432	1502	1683
Total	1530	1677	1781	1890	2093



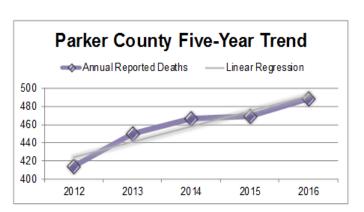
#### Johnson County, 2012-2016

Manner of Death	2012	2013	2014	2015	2016
Natural	73	60	59	72	67
Accidental	28	31	34	25	35
Suicide	13	27	19	13	16
Homicide	7	2	3	4	2
Undetermined	4	6	6	4	1
Non-human remains	3	1	0	0	0
Jurisdiction terminated	354	370	379	424	466
Total	482	497	500	542	587



#### Parker County, 2012-2016

Manner of Death	2012	2013	2014	2015	2016
Natural	46	54	72	72	69
Accidental	36	28	31	40	38
Suicide	15	12	14	29	32
Homicide	5	3	3	2	2
Undetermined	2	3	6	4	3
Non-human remains	0	0	0	0	0
Jurisdiction terminated	310	350	341	322	345
Total	414	450	467	469	489

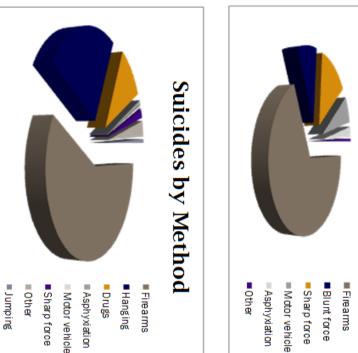


# Accidents, Homicides, and Suicides

Motor vehicle Other TOTAL	or vehicle er AL	or vehicle ar AL	or vehicle ar  AL  Nyxiation  It force	or vehicle er  AL  nyxiation nt force arms	or vehicle ar  Tyxiation or vehicle	or vehicle ar Tyxiation It force arms or vehicle In force
637	637 arrant	637  Tarrant	637 arant 3	637 arrant 3 12 93	637 arrant 3 12 93	637 arrant 3 12 93 6
	Denton	Denton	Denton  1	Denton  1  1  7	Denton  1  1  4	Denton  1  7  4
ა	Johnson	142         35           Denton         Johnson           1         0	Johnson  0	Johnson  0 2	Johnson 0 2	Johnson  0  2  0
38	38 Parker	38 Parker	Parker 0	78 Parker 0 0 2	<b>Parker</b> 0 0 2	Parker  0 0 2 0
852	852 Total	Total	Total 4	852 Total 4 13	Total  13 104 10	Total 4 13 104 100
•	%	3% %	% % %	68 88 88	3% 68% 7%	% 3% 68% 7%

	Idilait	ьспоп	<b>ТОСТИТО</b>	rainci	IOCAL	/0	_
Alcohol	15	1	0	0	16	2%	
Asphyxiation	21	2	2	0	25	3%	
Drowning	24	10	1	1	36	4%	
Drugs	192	46	10	15	263	31%	
Fall	137	24	2	4	167	20%	
Fire	2	0	0	1	ω	0%	
Motor vehicle	212	53	17	16	298	35%	
Other	34	6	3	1	44	5%	
TOTAL	637	142	35	38	852		
						?	
Asphwistion	larrant	Denton	Jonnson	Parker	Total	۵ %	
Blunt force	12	1	0	0	13	80%	
Firearms	93	7	2	2	104	68%	
Motor vehicle	6	4	0	0	10	7%	
Sharp force	19	2	0	0	21	14%	
Other	1	0	0	0	1	1%	

Homicides by Method



Hanging

Firearms

142 63

> 59% 10%

Sharp force Jumping

0 0

Motor vehicle

TOTAL

16

381

12

Drugs

Asphyxiation

**Tarrant** 

Denton

Johnson

Parker

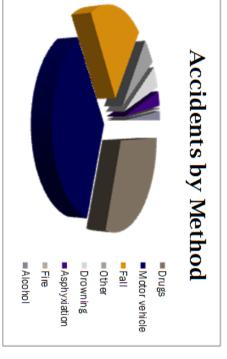
Total

9 N

15

2

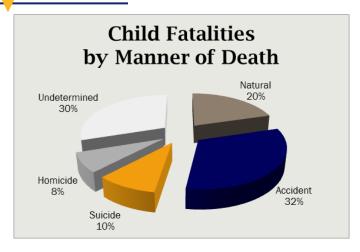
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# **Child Fatality Review**

he Child Fatality Review Team identifies community trends, creates prevention strategies, and promotes public awareness. The Tarrant County Medical Examiner's Office has contributed to these efforts, with the ultimate goal of reducing preventable childhood deaths, for over twenty years.



Manner of Death:	Natural		
CAUSE OF DEATH			
Sudden		10	
Unexplained death in childhood (S	SUDC) 2		
Infant death syndrome (SIDS)	2		
Unexplained infant death (SUID)	3		
Death associated with comorbidity	2		
Death, not otherwise specified	1		
Intrauterine/perinatal		3	
Diabetes		1	
Viral infection		1	
Bacterial infection		1	
Complications of congenital defect(s	3)	5	
TOTAL NATURAL DEATHS:			21

Manner of Death:	Suicide	
CAUSE OF DEATH		
Firearms	3	
Hanging	5	
Overdose	1	
Other	1	
TOTAL SUICIDES:		10

	1		Manner of Death:	Homicide
	1		CAUSE OF DEATH	
	1		Blunt force trauma	5
ital defect(s)	5		Drugs	1
THS:		21	Firearms	1
			Vehicular	1
Acciden	it		TOTAL HOMICIDES:	8
	10			
	18			** 1
15			Manner of Death:	Undetermined
4			OALIOE OF DEATH	

Manner of Death:	Accia	dent		
CAUSE OF DEATH				
Trauma			18	
Vehicular		15		
driver	1			
passenger	8			
bicycle/skateboard/ATV	3			
pedestrian	3			
Fall		2		
Train versus pedestrian		1		
Environmental (hypo/hyperthermia,	)		2	
Drugs			1	
Drowning			7	
bathtub		1		
pool		5		
creek/river/lake		1		
Asphyxia			5	
choking		3		
positional		2		
TOTAL ACCIDENTAL DEATHS:				33

Manner of Death:	Unde	etern	nine	ed
CAUSE OF DEATH				
Sudden			25	
Death in childhood (SUDC)		0		
Infant death syndrome (SIDS)		2		
Unexplained infant death (SUID)		21		
with co-sleeping	6			
with unsafe sleep environment	9			
not otherwise specified	6			
Unexplained neonatal death (SUNI	))	2		
Infection			1	
Trauma			4	
vehicular		2		
firearms		1		
other		1		
Complications of congenital defect(s)	)		1	
TOTAL UNDETERMINED DEATH	S:			31

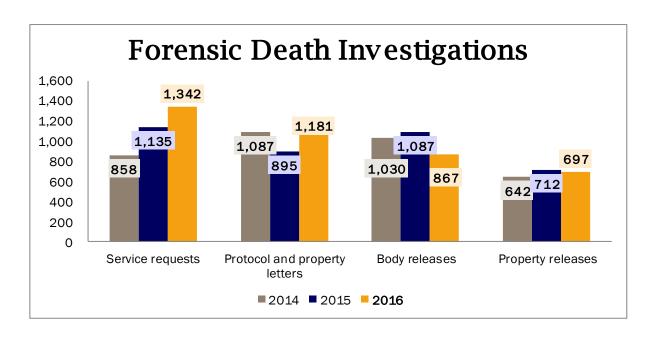
# Departments in Depth

# Forensic Death Investigation

orensic Death Investigation conducts investigations into the cause and manner of deaths occurring within its jurisdiction of Tarrant, Denton, Johnson, and Parker counties. Staffed around-the-clock, the department is responsible for initiating a formal response to all reportable deaths, which totaled **11,726** in 2016.

Trained across multiple disciplines, forensic investigators boast a distinctive array of knowledge, including criminal investigation techniques, relevant aspects of forensic medicine, crime scene processing skills, and methods of maintaining case integrity. Moreover, each investigator must be able to conduct effective interviews, locate and notify next of kin, and interact appropriately with law enforcement personnel.

Once the Tarrant County Medical Examiner's office assumes jurisdiction of a case, the investigator attends the scene or the hospital at which death occurred. After conducting the initial investigation, the investigator prepares a detailed case report containing biographical data on the decedent, a narrative of the events leading up to the time of death or discovery of the decedent, and a summary of all analyses and leads obtained. Investigators further coordinate with health care providers, members of law enforcement, employers, families, and other pertinent sources to gather information that may be of value in determining the cause and manner of death.





## **Human Identification Services**





dentification of unidentified remains, a primary function of the Tarrant County Medical Examiner's Office, is a legal determination important for both legal and humanitarian reasons. The process requires a holistic approach that takes into consideration all



available scientific and contextual evidence. For most people, having a loved one at a morgue for postmortem examination is stressful; hence, the Tarrant County Medical Examiner's Office strives to mitigate this by timely identification within the scope defined by <a href="Statute 49.25">Statute 49.25</a>, <a href="Section §9">Section §9</a> of the Texas State Code of Criminal Procedure.

#### **Overview**



The Tarrant County Medical Examiner's Office established the Human Identification Laboratory in the mid-1990s as a standalone facility, a concept then unique among medical examiner's offices in the United States. This laboratory is charged with the responsibility of

investigating and attempting to identify all decedents presented to the District as "unidentified." The Human Identification Laboratory additionally verifies the identity of all homicide victims examined by the office.

Since 2004, the Human Identification Laboratory has identified more than **4,500** individuals in the morgue.

#### **Identification Methods**

There are a number of scientific methods employed to definitively establish an identity, including:

- Fingerprint analysis
- Comparison of dental radiographs and records
- Comparison of medical radiographs and records
- DNA analysis

Other methods, such as lip-print analysis (or cheiloscopy), ear-print analysis, and gait analysis are not generally accepted nor used in the U.S. at this time.

#### **Staffing**

The Human Identification Laboratory comprises a full-time forensic odontologist, a full-time forensic anthropologist, and two full-time fingerprint examiners. Note that the fingerprint section of the lab operates 24 hours a day, seven days a week.



#### Forensic Odontologist

• Roger D. Metcalf, D.D.S., J.D.



#### Forensic Anthropologist

• Dana Austin, Ph.D.



#### Latent Fingerprint Examiner

ShaVonda Epps



#### Latent Fingerprint Examiner

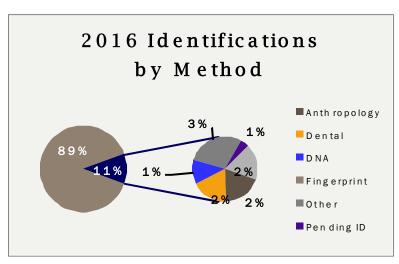
• Bill Walker

Roger D. Metcalf, D.D.S., J.D. is the director of the Human Identification Laboratory. He is board-certified in forensic odontology and holds a diploma in Forensic Human Identification from the Faculty of Forensic and Legal Medicine of the Royal College of Physicians in London. He is the only person in the U.S. to hold this qualification at this time. Dr. Metcalf is the past president of the American Society of Forensic Odontology and past chair of the Certification and Examination Committee of the American Board of Forensic Odontology.

**Dana Austin, Ph.D.**, is the District's forensic anthropologist. She is board-certified by, and is the past president of, the <u>American Board of Forensic Anthropology</u>. In addition to performing laboratory examinations, she supervises the Field Recovery Team, which is called out from time to time to recover skeletonized human remains or assist in exhumations. Dr. Austin also works with various state agencies to repatriate Native American remains that are discovered in the District's jurisdiction.

Ms. ShaVonda Epps and Mr. Bill Walker are the lab's fingerprint examiners. They are each members of the International Association for Identification and both certified by the Texas Department of Public Safety as terminal operators of the <u>Automated Fingerprint Identification System</u> (A.F.I.S.). Whenever known antemortem fingerprints are available from stored state or national data, A.F.I.S. allows for rapid identification of decedents via fingerprint analysis and comparison.

As shown in the chart at right, the majority (about 89%) of unidentified persons at the County Medical Tarrant Examiner's Office are identified via fingerprint analysis. Identifications made way are generally complete within 24 hours of the decedent's arrival.



#### **Identification Process**

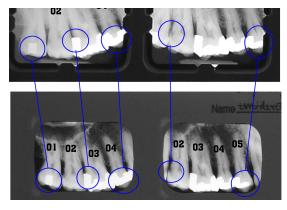


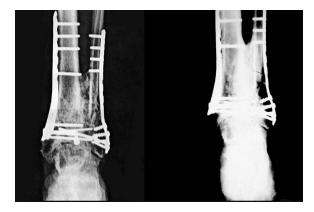
Identification Laboratory's The Human identification protocol normally begins with a fingerprint inquiry to determine if the decedent's fingers are suitable for fingerprinting. If they are, the lab can access the A.F.I.S. and/or the Generation Identification system (NextGen or N.G.I.), as well as request fingerprints from the Texas Department of Public Safety's driver's license database. International fingerprints can be obtained from the Biometric Support Center West at the U.S. Department of Homeland Security. Fingerprint identification is generally quick and cost-effective, and a major advantage of the A.F.I.S. and NextGen systems is that there is no need to have any information

regarding the tentative identity of the decedent in order to perform the database inquiry.

If fingerprint analysis is not feasible, such as in cases with badly charred human remains, the next method employed by the lab is a review and comparison of dental and medical radiographs and records. With these methods, the lab does need to have some basic information regarding the tentative identity of the decedent. The lab obtains this information through interviews with the family or friends of the putative decedent, attempting to find out which dentists and healthcare providers the individual may have seen, or whether any radiographs, such as a head CT or chest x-ray, may have been made in a hospital.

If the lab does find a dentist or hospital where the putative decedent was treated, staff request any records they may have. If radiographs are available, Dr. Metcalf will evaluate the dental films while Dr. Austin evaluates any medical imaging. A recommendation regarding the decedent's identity will then be made to the medical examiner leading the case.





When other methods fail or cannot be used, DNA analysis is the last resort of the Human Identification Laboratory. <u>Section §63.056 of the Texas Code of Criminal Procedure states:</u>

COLLECTION OF SAMPLES FROM UNIDENTIFIED HUMAN REMAINS. (a) A physician acting on the request of a justice of the peace under Subchapter A, Chapter 49, a county coroner, a county medical examiner, or other law enforcement entity, as appropriate, shall collect samples from unidentified human remains. The justice of the peace, coroner, medical examiner, or other law enforcement entity shall submit those samples to the center for forensic DNA analysis and inclusion of the results in the DNA database.

The "center" in Section §63.056 refers specifically to the University of North Texas Human Identification Center in Fort Worth, colloquially known as the UNT Lab. The TCMEO's Human Identification Laboratory submits



specimens obtained at the time of examination of human remains to the UNT Lab, and a family member or two will be asked to go to the UNT Lab to provide a family reference sample for comparison. (The sample needed is a buccal swab, obtained by swabbing the inside of the cheek.) There is no charge to the family for this procedure.

The UNT Lab then develops the decedent's DNA and compares it to the profile from the family reference sample. Occasionally, the family of a missing person will have already provided the reference sample to the database, and rarely, the decedent's own DNA profile will already be in the database.



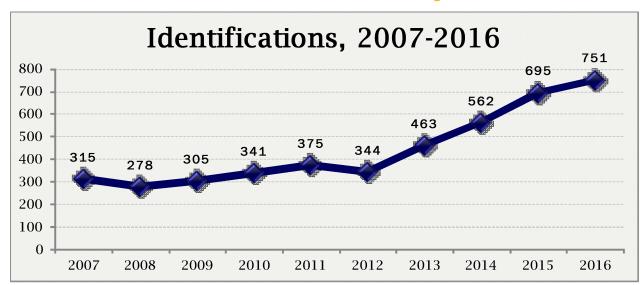
If identification cannot be made, the Human Identification Laboratory enters what information it has for the unidentified remains into the clearinghouse and the <u>National Crime Information Center's Unidentified Person File</u> within ten working days, in compliance with the Texas Code of Criminal Procedure Section §63.009(c), which states:

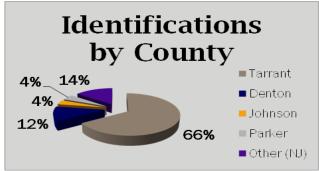
All Texas law enforcement agencies are required to enter information about all unidentified bodies into the clearinghouse and the National Crime Information Center Unidentified Person File. A law enforcement agency shall, not later than the 10th working day after the date the death is reported to the agency, enter all available identifying features of the unidentified body (fingerprints, dental records, any unusual physical characteristics, and a description of the clothing found on the body) into the clearinghouse and the National Crime Information Center file. If an information entry into the National Crime Information Center file results in an automatic entry of the information into the clearinghouse, the law enforcement agency is not required to make a direct entry of that information into the clearinghouse.

The Human Identification Laboratory also enters information regarding these cases into the <u>National Missing and Unidentified Person System</u> (NamUS) that is currently housed at the University of North Texas Health Science Center in Fort Worth. These various databases periodically compare the information about unidentified persons in their system to the information about missing persons that has been entered into the respective system, scanning for possible matches. Access to the N.C.I.C. database is limited to law enforcement agencies, while the NamUS missing persons' database is open to the general public.

The Human Identification Laboratory maintains a list of all unidentified individuals who have been buried by Tarrant County Human Services. Before an unidentified decedent can be released for burial, however, various samples are collected and preserved in the hope of eventual identification and in compliance with state law.

#### **Human Identification Laboratory Statistics**





#### Identification Average Time Method to Identify

Fingerprint	1
Dental	4.4
Medical	4.9
D N A	76.5



#### **ANTHROPOLOGY**

Full Skeletal Analysis	8	- 49
Scene Recovery	7	
Neck Trauma Evaluation	19	
Trauma Evaluation	11	
Radiographic Comparison ID	14	_ / / / / / / /
Historic/Prehistoric	4	- 27
Cremated Remains	2	
Burned remains	1	
FBI Consult	1	
Non-Human Remains	8	



## The Morgue & Evidence Services

he heart of activity of any medical examiner's facility, the Tarrant County Medical Examiner's Office morgue was dedicated in 1989 and employs a design that centralizes morgue activity, effectively connecting interrelated morgue functions while isolating it from other



work areas of the building. This design limits pathogen exposure and enables examiners and technicians to work with minimum interruption.

The main morgue consists of four workstations, each designed to further a dynamic work environment in which examinations can be carried out with maximum efficiency. A separate major case morgue, a teaching morgue capable of seating 45 students, and a two-station isolation/biohazard morgue were included in the new construction. The morgue also contains two holding areas, each capable of holding fifty bodies; one of the areas is dedicated to incoming cases only, while the other holds bodies awaiting release.

The morgue's autopsy technicians, or deiners, assist the medical examiners in forensic examination. Each deiner is responsible for obtaining photographs, radiographs (x-rays), fingerprints, and biological samples from the decedent before autopsy.

Because the identification of foreign bodies in or on a decedent is vitally important to a comprehensive examination, the medical examiner's office relies on radiography tools like the C-arm fluoroscope, which enables imaging of the body without prior removal from the transport gurney. Other tools include a fixed flat plate device and articulated dental radiography equipment.

#### **Evidence Services**

In order to preserve evidentiary integrity, each piece of evidence collected by or submitted to the Tarrant County Medical Examiner's Office must be paired with a detailed chain-of-custody log. Forensic technicians with expertise in evidentiary preservation maintain and secure chain-of-custody to ensure that all evidence is handled and stored properly.

## Forensic Chemistry & Toxicology

orensic chemists analyze drugs submitted by other agencies. Drug types received commonly range from clandestine chemical substances to the therapeutic or prescribed medications. Cocaine, heroin, marijuana, and amphetamines, all drugs of abuse, represent the most common products received for chemical assay. Daily, law enforcement agencies within the TCME District are faced with the challenge of identifying drugs found following an arrest or search warrant execution.

#### **Intoxilyzer Program**



An Intoxilyzer instrument measures a sample of breath for determinable levels of alcohol concentration, providing an objective, scientific means of testing someone who is suspected by police to have been driving under the influence of alcohol. In 1994, using grant funds supplied by the Texas Department of Transportation, the Intoxilyzer program was established at the Tarrant County

Medical Examiner's Office. Under the program, forensic chemists establish Intoxilyzer test sites, calibrate and maintain equipment, and train Intoxilyzer operators, which benefits local police agencies.

#### **Forensic Toxicology**

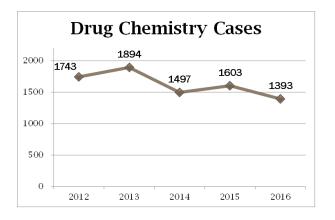
Established at the Tarrant County Medical Examiner's 1983, the toxicology laboratory has office in include subsequently expanded to mass spectrometry, gas chromatography, high-The liquid chromatography analysis. pressure toxicology laboratory provides drug testing to assist the medical examiners in determining the cause and manner of death by isolating, identifying, and

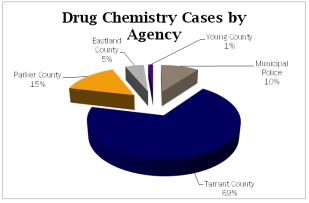


determining the level of chemicals present in specimens. The forensic toxicology laboratory also participates regularly in established analytical proficiency testing and quality assurance programs.

# **Drug Chemistry**

016 saw a decline in casework allowing continual improvements in the efficiency of the Drug Chemistry laboratory with a lower average turnaround time of 22 days to complete a case.





Average cases per month, 2016





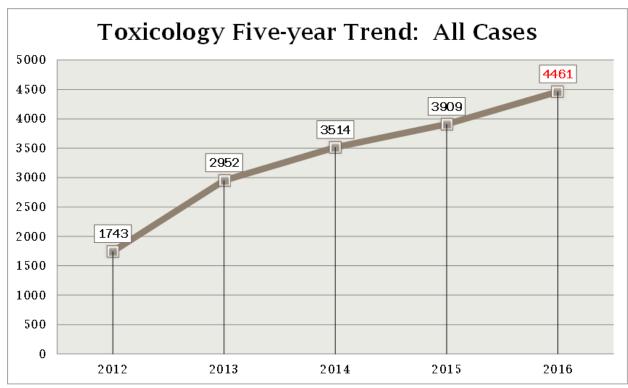
136
5-year average cases/month

#### **Drug Chemistry Cases**

	2012	2013	2014	2015	2016
JAN	191	72	132	136	160
FEB	218	83	199	104	126
MAR	139	165	131	151	124
APR	140	182	126	158	128
MAY	151	226	148	148	104
JUN	168	102	111	121	112
JUL	155	223	126	133	85
AUG	147	160	93	101	145
SEP	88	134	107	149	109
OCT	139	244	119	156	99
NOV	66	82	74	107	109
DEC	141	221	131	139	92
Annual Caseload	1743	1894	1497	1603	1393

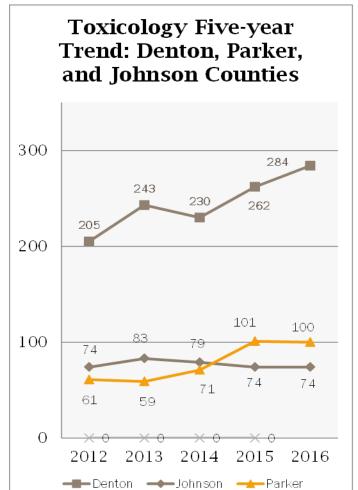
# Toxicology

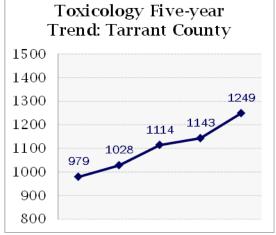
n 2016, Toxicology cases from the four counties in the Tarrant County Medical Examiner's District totaled 1707, up 8% from 1580 the previous year, and accounting for 38% of all Toxicology cases. Other medical examiner (598) and outside agency (2156) cases bring the total cases completed by the Toxicology laboratory in 2016 to 4461, representing an increase of 14% over 2015's total of 3,909.

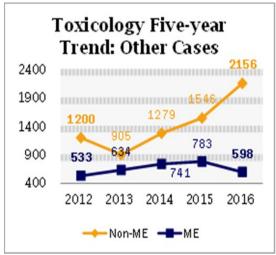


Much as they did in 2015, outside cases, which typically include DWI, DFSA (drug-facilitated sexual assault), and defense attorney cases, increased significantly, rising 39% from 1546 cases in 2015 to 2156 cases in 2016. Moreover, as DWI cases continue to grow in scope, with fewer cases requiring only alcohol analysis, and traditionally complex medical examiner cases steadily rise in number, significantly more work is done by the Toxicology laboratory. Despite the 14% increase in total caseload, the lab delivered results 35% faster than they had in 2015, with turnaround time decreasing from 23 to 16 days in 2016.









						2016						
										Otl	ner	
_	2011	2012	2013	2014	2015	Tarrant	Denton	Johnson	Parker	ME	Non-ME	Total
JAN	247	239	316	266	329	94	17	5	6	46	237	405
FEB	198	267	218	314	306	89	21	11	9	39	226	395
MAR	245	229	303	256	317	109	23	2	13	52	208	407
APR	215	214	255	328	311	119	27	7	3	42	177	375
MAY	265	261	229	283	301	108	23	12	7	66	142	358
JUN	279	261	224	289	306	104	28	10	8	50	170	370
JUL	259	279	221	276	354	106	22	4	6	60	206	404
AUG	243	268	230	277	308	82	25	4	14	58	229	412
SEP	235	254	263	285	255	103	24	7	9	47	203	393
OCT	243	280	207	312	377	115	24	7	10	37	80	273
NOV	246	270	235	316	317	105	25	2	7	48	154	341
DEC	284	230	251	312	428	115	25	3	8	53	124	328
TOTAL	2959	3052	2952	3514	3909	1249	284	74	100	598	2156	4461

# **Criminalistics**

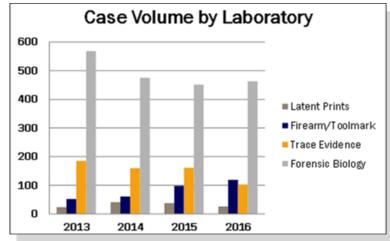
ince 1989, the Tarrant County Medical Examiner's Office has operated a full-service crime laboratory, serving the needs of not only its medical examiners, but also of law enforcement agencies and district attorney's offices in North Central Texas and throughout the United States.

Criminalistics Cases by Laboratory								
		Firearm/	Trace	Forensic				
	Latent Prints	Toolmark	Evidence	Biology				
Total reports issued in 2016	26	119	103	463				
Reports issued within TCMED	22	115	81	402				
Reports issued outside TCMED	4	4	22	61				
TCME or law enforcement on TCME case	5	35	51	31				
Non-ME case	21	24	34	432				

Equipped with modern analytical instrumentation, the various sections of the crime laboratory combine scientific technology with an experienced professional staff. The five specialized sections of the crime laboratory identify, analyze, and report on such forms of evidence as DNA, blood spatter, trace materials, chemical compounds, firearms, tool marks, and latent fingerprints.

In 2016, the Trace Evidence laboratory expanded the scope of their ASCLD/LAB International accreditation to include imprint/impression evidence comparisons (footwear and tire tread examinations),

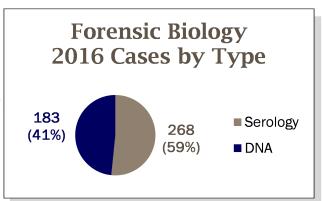




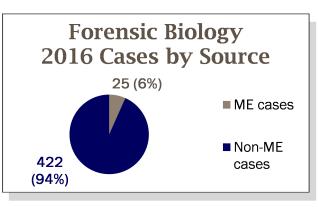


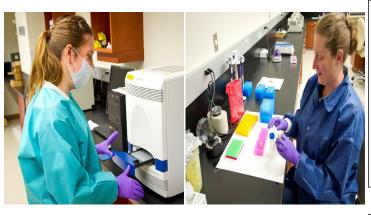
# Forensic Biology

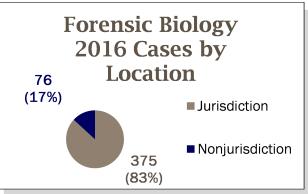
NA analysis provides the ability to restrict the potential population of persons to whom a biological sample might belong to a much smaller subset of suspects. This helps identify the source of a sample and connect it to a particular death or crime scene.



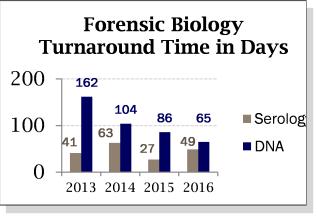
The Tarrant County Medical Examiner's DNA unit is a designated CODIS (Combined DNA Index System) laboratory. CODIS is the FBI's DNA database that ultimately links all 50 states and 18 countries in order to compare forensic casework profiles. A database search can provide significant investigative leads and may link unsolved cases to a single perpetrator.



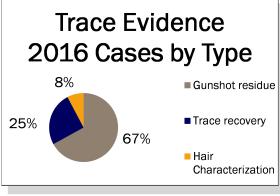




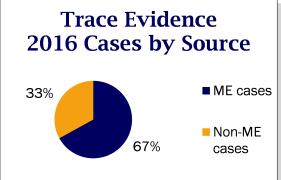
Forensic Biology issued reports on 463 cases in 2016. These cases are categorized at right by *type* (serology or DNA), *source* (requestor), and *location* (within or without the Tarrant County Medical Examiner's District). The lab has also reduced its DNA turnaround time and now provides results in nearly half the time it did two years ago.



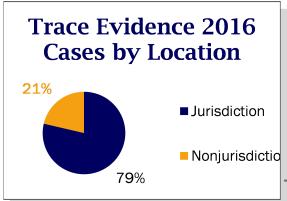
## Trace Evidence



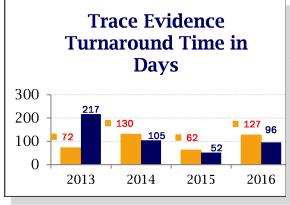
race evidence is material that can be easily transferred from one site to another because of its size or weight. During the commission of a crime, substances may be transferred between people or objects or acquired from the surrounding environment. Gunshot residue, hair, glass, paint, and fibers are items commonly submitted for examination.



Trace analysis uses advanced technology and instrumentation to obtain chemical profiles of materials, in order to relate them to each other or to a common source. This enables investigators to potentially link a suspect and a victim to a shared location.





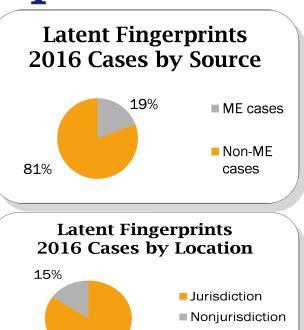


**Trace Evidence issued reports on 103 cases in 2016.** These cases are categorized at left by *type* (gunshot residue or trace recovery), *source* (requestor), and *location* (within or without the Tarrant County Medical Examiner's District). The lab has increased its turnaround in 2016 due to extensive training for the expansion of services including hair characterization and impression evidence comparisons.

#### **Latent Fingerprints**

fundamental tool of the Tarrant County Medical Examiner's Office, latent fingerprint examination helps to identify bodies that arrive to the morgue unidentified. Latent prints can also be retrieved from submitted evidence and used to assist in identifying a criminal suspect. Using the newest technology and considerable expertise, the latent print examiner achieves remarkable results in lifting prints from various substrates.

Latent Fingerprints issued reports on 26 cases in 2016. These cases are categorized at right by *source* (requestor) and *location* (within or without the Tarrant County Medical Examiner's District).

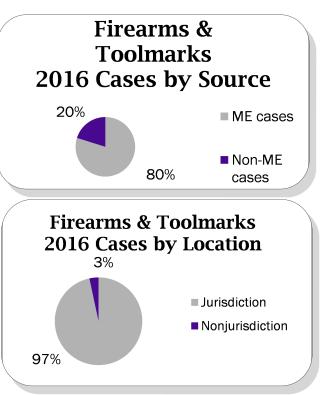


85%

#### Firearms and Toolmarks

uch as its name suggests, this laboratory analyzes firearms, projectiles, ballistics, and markings imparted by any form of tool. Firearms submitted are examined for inherent characteristics, unique identifiers, and safety-related factors. They can also be test-fired to obtain reference material that can subsequently be compared to submitted evidence. The laboratory boasts a 40-foot indoor firing range, used to carry out range-of-fire determinations.

Firearms and Toolmarks issued reports on 119 cases in 2016. These cases are categorized at right by *source* (requestor) and *location* (within or without the Tarrant County Medical Examiner's District).



#### Forensic Photography

fully equipped forensic photography laboratory was added to the Criminalistics Laboratory of the Tarrant County Medical Examiner's Office in 1994. By 2005, Forensic Photography had replaced all film processing with digital photography.

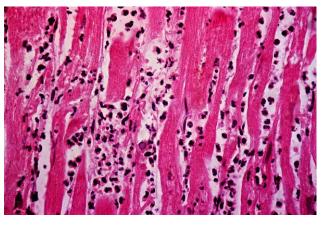
In addition to more traditional photography, the laboratory is capable of making photographs using ultraviolet and infrared techniques. Image enhancement can also be performed. Pictures, enlargements, and other services are provided to medical examiners, courts, and individuals for educational or research-based presentations.



The Forensic Photography laboratory produced 139,731 autopsy and scene photographs and worked on a total of 1990 cases in 2016. An average of 11,644 photographs were produced by the laboratory monthly.

#### Forensic Histology

any cause of death determinations rely upon the examination of decedent tissues and organs. Special stains and fixation methods are employed to assist the physician in identifying disease processes and tissue changes that occur in response to trauma, lifestyle habits, or other variables.

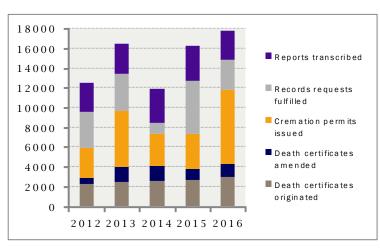


In 2016, Forensic Histology provided 58,752 services (averaging over 4800 monthly) and worked on a total of 3216 cases. Despite this significant volume, turnaround times remained in compliance in 100% of cases.

#### Administrative & Facility Support

#### **Secretarial Services**

Secretaries for the examiner's office work directly with public, assisting bereaved families, law enforcement personnel, judicial authorities, healthcare providers, and funeral directors what through many people understandably find to be a difficult and perplexing time. Each medical examiner is assigned a secretary, who provides the administrative



support services necessary to the daily operation of the business.

Additional services provided by the secretarial team include issuing death certificates and medical amendments, preparing and distributing cremation permits, transcribing autopsy reports, managing case records, documenting continuing medical education (CME) credits, and producing other business reports.

#### **Business Office**

The Business Office was established to meet the increasing complexities of the day-to-day management of the business aspects of the TCME. The Business Manager and Bookkeeper comprise the office and carry out budgeting, contracting, financial reporting, accounts payable, accounts receivable, personnel timekeeping, and other related fiscal tasks. The Business Office also maintains inventory of all supplies, office equipment, and scientific equipment, and ensures all service warranties are current. The Transportation of Human Remains contract, a key requirement of business operation, is also supervised by the Business Manager.

#### **Building Superintendent**

Responsible for all general maintenance of the building, the Building Superintendent oversees vendors and contractors to ensure work is performed properly, and supervises work-release individuals assigned to janitorial and grounds duties. This role is especially vital in maintaining the ventilation and air conditioning requirements unique to a medical examiner's office, with its inherent biohazards and significant investment in scientific instruments that cannot tolerate temperature changes.

# Acting Globally: Humanitarian & Cultural Endeavors

#### Syria: Evaluation of In-Custody Torture and Deaths of Detainees

The Tarrant County Medical Examiner's Office received a request from the Physicians for Human Rights (PHR), a non-governmental human rights organization and a Nobel Peace Prize co-laureate, based in Boston, MA, to assist Human Rights Watch (HRW) in evaluating photographic documents of torture and death in Syrian Detention Centers.

The Syrian Conflict began March 15, 2011, when protesters marched in the capital of Damascus, demanding democratic reforms and the release of political prisoners. It now continues into its sixth year. By United Nations' estimates, over 250,000 Syrian men, women and children have been killed, over 12 million externally and internally displaced, and many thousands have disappeared. In January 2014, news emerged that a defector had left Syria with tens of thousands of images showing the bodies of detainees who died in Syria's detention centers. A team of international lawyers, as well as Syrian activists, interviewed the defector, codenamed "Caesar," who stated that he worked as a forensic photographer for the Military Police, and he had personally photographed bodies of dead detainees, as well as archiving thousands more photographs. According to the international team of experts that prepared the first report on the collection, Caesar smuggled out more than 50,000 images. No systemic evaluation of these photographs had hitherto been conducted by forensic pathologists.

A detailed report filed by the physicians of Tarrant County Medical Examiner's Office documents evidence of torture and the probable cause of death of nineteen such detainees under the control of Military and Air Force Detention Centers in Damascus, Syria. The evaluation is based on examination of 72 digital color photographs which are part of over 50,000 Caesar photographs.

Torture is an act that is deliberately inflicted on a person resulting in conscious pain and or suffering. Prohibition of torture is absolute and is enshrined in Article 5 of the 1948 Universal Declaration of Human Rights. The report details 18 males and one female; their ages ranged from peri-adolescent to middle-aged, though most of the victims were estimated to be in the age group 20s-40s. In five cases, the cause of death remained undetermined due to lack of sufficient photographic evidence. In the remaining fourteen cases, there were four deaths attributed to starvation, six deaths to violent blunt force trauma, three deaths to suffocation and one death due to penetrating gunshot wound of head.

This report also documented use of torture by Syrian authorities, starvation of detainees and prolonged standing due to over-crowding in the cells. The Syrian Government has employed several different methods of torture including "Shabeh" which consists of hanging the victim from ceiling by the wrists so that his toes barely touch the ground or completely suspended, and "Dulab", where the victim is forced to bend at the waist and stick his head, neck, legs and sometimes arms into the inside of a car tire. Thus immobilized, the victim is subjected to blows, cigarette burns and even electric shock.



(Pictured at left: illustration of the "Shabeh" torture technique. Pictured at right: illustration of the "Dulab" torture technique.)



"If the Dead Could Speak: Mass Deaths and Torture in Syria's Detention Facilities" See Human Rights Watch Report: December 16, 2015.

https://www.hrw.org/report/2015/12/16/if-dead-could-speak/mass-deaths-and-torture-syrias-detention-facilities

# Knowledge Sharing

#### A Passion to Educate

rom annual conferences to weekly reviews to daily meetings, opportunities to educate are always welcomed by the staff of the Tarrant County Medical Examiner's Office. Our medical examiners, criminologists, and other scientists are routinely sought for their expertise in the field of forensics and relish every chance they get to augment the collective fund of knowledge in it. In this section, we highlight some of the 2016 events at which staff of the Tarrant County Medical Examiner's Office shared their expertise:

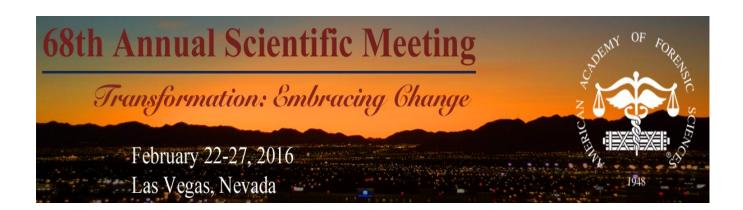


# American Academy of Forensic Sciences 68th Annual Meeting: Transformation: Embracing Change February 22-27, 2016

#### Forensic Pathology Staff

"If at First You Don't Succeed..." "Suicide cases by multiple gunshot wounds and the characteristics that distinguish these suicides from homicide cases." Allison Mautone, M.D., Richard Fries, D.O., Tasha Greenberg, M.D., Nizam Peerwani, M.D.

"Gross & Histological Pediatric Skeletal Trauma Evaluations at the Tarrant County Medical Examiner's Office" Co-authors Richard Fries, D.O., Tasha Greenberg, M.D., Marc Krouse, M.D., Nizam Peerwani, M.D., Susan Roe, M.D.







Chief Toxicologist Robert Johnson, Ph.D.

"Problematic Alcohol Extrapolation Cases"

"Opioids: Postmortem Considerations"

Susan R. Howe, D.V.M., Ph.D.

Planning Committee and Workshop Co-chair



#### National Institute of Standards and Technology Gaithersburg, MD September 2016

Chief Toxicologist Robert Johnson, Ph.D.

"Emerging Analytes of Interest for Medicolegal Death Investigation"



Forensic Fellow, Allison Mautone, M.D.

AAFS Presentation, "If at First You Don't Succeed...," March 8, 2016

Chief Toxicologist, Robert Johnson, Ph.D.

"The Designer Drug Challenge," May 10, 2016

Senior Criminalist, Reza Alaeddini, Ph.D.

"DNA Evidence," August 2, 2016

<u>Deputy Medical Examiner Susan J. Roe, M.D.</u>

"Infanticide Cases," November 1, 2016



#### Sr. Forensic Anthropologist, Dana Austin, Ph.D. and Rebecca E. King

"The Biological Profile of Unidentified Human Remains in a Forensic Context", P. 370-390.

<u>Sr. Forensic Anthropologist, Dana Austin, Ph.D., Christian Crowder, Jason Wiersema, Bradley Adams, Jennifer Love</u>

"The Utility of Forensic Anthropology in the Medical Examiner's Office", P. 349-360.





#### **University of North Texas Graduate School** of Biological Sciences **September 2016**

Susan R. Howe, D.V.M., Ph.D.

"Forensic Toxicology Overview"



#### Texas Health Huguley Hospital Huguley Hospital Emergency Room Physicians May, 2016

Sr. Trace Analyst/Trace Technical Lead, Vicki Hall, M.S.

"Collection of Forensic Evidence"



**Traffic Safety Conference College Station, TX** 

Chief Toxicologist Robert Johnson, Ph.D.

"The Effects of Drugs on Driving"





# American University of Science & Technology, Beirut, Lebanon March 2016 & October 2016

#### Chief Medical Examiner, Nizam Peerwani, M.D.

"Forensic Medicine"

"Introduction to Criminalistics"

Technical & Administrative Director, Ron Singer, M.S.

"Introduction to Criminalistics"



# Dubai Police Department & Forensic Laboratories, Dubai, United Arab Emirates December 2016

#### Technical & Administrative Director, Ron Singer, M.S.

"Some of the Issues Confronting Firearm Examination in the United States Today"





#### A Passion to Learn

he field of forensics evolves rapidly, as new technological developments enable improved methods and techniques. The staff of the Tarrant County Medical Examiner's Office are committed to keeping abreast of these changes and seek out opportunities to do so, as shown below.



## American Academy of Forensic Sciences 68th Annual Meeting: February 2016

Chief Medical Examiner, Nizam Peerwani, M.D.

Deputy Medical Examiner, Tasha Z. Greenberg, M.D.

Forensic Fellow, Allison Mautone, M.D.

Technical and Administrative Director, Ronald Singer, M.S.

Chief Toxicologist, Robert Johnson, Ph.D.

Crime Lab Director, Susan Howe, Ph.D.

Chief of Human Identification, Roger Metcalf, D.D.S; J.D.

Senior Anthropologist, Dana Austin Ph.D.

Senior Forensic Biologist, Kristen Hammonds, B.S.

Senior Forensic Biologist, Peggy Le, B.S.

Forensic Biology Specialist, Kira Tillman, B.S.

Quality Manager Chris Heartsill, B.S.

Business Manager, Tracye Poirier, M.B.A.



United States and <u>Canadian Academy of</u>
<u>Pathology Annual Conference</u>

March 2016

Deputy Medical Examiner Susan Roe, M.D.



# Association of Firearm & Toolmark Examiners *Annual Training Seminar*May 2016

Senior Criminalist, Firearms & Tool Marks, Charles Clow, M.A.



## Southwestern Association of Toxicologists May 2016

Chief Toxicologist, Robert Johnson, Ph.D.

Senior Toxicologist, Aria McCall, B.S.

Senior Toxicologist, Beryl Landry, B.S.

Toxicologist, Leanne Hazard, B.S.

Toxicologist, Katie Scott, B.S.



Texas DPS Statewide Trace Evidence Meeting June 2016

Senior Criminalist, Vicki Hall, M.S.



Association of Forensic DNA Analysts and Administrators *Summer Meeting July 2016* 

Forensic Biologist & Backup CODIS Administrator, Heather Kramer, M.S.





#### Texas Association of Crime Laboratory Directors Meeting July 2016

Crime Laboratory Director, Susan Howe, Ph.D.



**Alcohol Testing Alliance August 2016** 

Senior Forensic Chemist, Sarah Skiles, B.S.



Organization of Scientific Area Committees Meeting August 2016

Chief Toxicologist, Robert Johnson, Ph.D.



Southwestern Association of Forensic Scientists *Annual Meeting*September 2016

Senior Forensic Chemist Michelle O'Neal, B.S.



National Association of Medical Examiners Annual Conference October 2016

Forensic Fellow Barrie Miller, M.D.



## Society of Forensic Toxicologists *Annual Meeting October 2016*

Chief Toxicologist, Robert Johnson, Ph.D.

Quality Manager, Chris Heartsill, B.S.

Crime Laboratory Director, Susan Howe, Ph.D.

Senior Toxicologist, Aria McCall, B.S.

Senior Toxicologist, Connie Lewis, B.S.

Senior Toxicologist, Beryl Landry, B.S.

Toxicologist, Leanne Hazard, B.S.

Toxicologist, Katie Scott, B.S.



### Federal Bureau of Investigations National FBI CODIS Conference November 2016

DNA Technical Lead & CODIS Administrator Constance Patton, B.S.



#### **Education in the Office**

For there are some who long to know for the sole purpose of knowing, and that is shameful curiosity; others who long to know in order to become known, and that is shameful vanity... others still who long for knowledge in order to sell its fruits for money or honors, and this is shameful profiteering; others again who long to know in order to be of service, and this is charity. —Bernard of Clairvaux

taff of the Tarrant County Medical Examiner's Office meet regularly to review cases, continue professional education, and exchange ideas. A lecture calendar is published and distributed each month to encourage participation.

#### **Critical Case Review (Twice Monthly)**

Generally meeting at lunch on the second and fourth Wednesdays of each

month, Critical Case Review gives the medical examiners time to discuss their most complex or high-profile cases with each other and with key members of staff from the investigative, laboratory, and identification sections of the office. Unexpected findings, unusual developments, and contradictory evidence are all reviewed and analyzed before a consensus regarding cause and manner of death is reached. In particularly difficult



cases, examiners may agree to "re-pend" a case and review it again at a later Critical Case Review, while the case's medical examiner solicits more information by ordering specialized testing, seeking law enforcement agency input, requesting more medical records, or some combination thereof.

A summary of reviewed cases and their disposition is produced by the meeting's scribe and submitted to qualify Critical Case Review meetings for Continuing Medical Education (CME) credits. In this way, Critical Case Review fulfills two needs at once and enables medical examiners to spend more of their time working on cases for

#### **Child Mortality Case Review (Monthly)**

A "cousin" of Critical Case Review, Child Mortality Case Review was born of the desire to increase transparency with child welfare advocates and educate health, law, and social service agencies about the rigorous process of determining cause and manner of death in pediatric cases. It is limited to cases in which (1) the decedent is between 0 and 17 years of age at the time of death and (2) the death occurred within Tarrant County.

As with Critical Case Review, a summary of reviewed cases and their disposition is produced by the meeting's scribe and submitted to qualify these meetings for Continuing Medical Education (CME) credits, again helping medical examiners spend more of their time completing cases.

#### **Grand Rounds (Near-Weekly)**

At 8:00 a.m. most Tuesdays of the year, excluding those following Monday holidays, the Tarrant County Medical Examiner's Office hosts an hour-long presentation given by an invited speaker or by a member of our staff on a range of topics in the fields of forensics, law, health, and medicine. Audiences are typically drawn from medical students, healthcare providers, and law enforcement personnel.

#### **Journal Club (Monthly)**

The Journal Club meets for lunch in the second floor library of the Tarrant County Medical Examiner's Office. A scholarly article in forensics, medicine, or a closely-related discipline is selected ahead of time for discussion to help participants stay better informed of developments in their fields.

#### **Morning Mortality Conference (Daily)**

Each morning at 8:30 a.m., the forensic pathologists of the Tarrant County Medical Examiner's Office meet to review the day's schedule of cases, determine what procedure (autopsy, partial autopsy, or external examination) each case requires, and assign cases to each examiner. In this way cases are triaged effectively, much as they would be in a hospital or clinical setting. Morning Mortality also serves as a short-form Critical Case Review, in that guidance may be sought from the group on how best to proceed with complex or sensitive cases.



#### **Future Forensic Scientists**

In all, 47 residents enrolled in 39 accredited forensic pathology programs in 2010—low compared with many other medical subspecialties and barely on the radar of the roughly 6,000 students who go into internal medicine in the U.S. every year.

Part of the problem, experts say, is there isn't enough material support or direct connections to pathology departments in medical schools and training hospitals, where students could get more exposure to the work of forensic pathology and become more interested in pursuing it as a subspecialty. —"Forensic Pathologists: The Death Detectives," PBS Frontline Post Mortem: Death Investigation in America

s part of our commitment to those we serve, the Tarrant County Medical Examiner's Office is proud to do its part to train the next generation of forensic pathologists and other forensic scientists through the comprehensive educational initiatives described below.

#### **Tarrant County and United Arab Emirates**

In 2015, Tarrant County entered into a partnership with the Abu Dhabi Judicial Department in the United Arab Emirates, enabling scientists from the forensic laboratory to spend the beginning six months of the year training in Toxicology and Drug Chemistry.



Training included comprehensive

lectures on laboratory quality, method development and validation, and forensic laboratory operations. Hands-on training was additionally provided in the analytical evaluation of drug analysis and identification, postmortem toxicology, and human performance toxicology.

In 2016, Tarrant County followed up the training that took place in 2015 with visits to Abu Dhabi. The focus of these visits was to assist and ensure laboratory implemented validated procedures, analyst training programs, and a quality management system in preparation for international accreditation. Training and laboratory support were provided by Dr. Nizam Peerwani, Dr. Robert Johnson, Chris Heartsill, continuing the long distance partnership for learning with the Abu Dhabi Judicial Department.



#### **Students from Abroad**

Students from a variety of programs at the American University in Beirut and the American University of Science and Technology in Achrafieh attend a long internship, rotating through the Tarrant County Medical Examiner's Office and each forensic laboratory section within it. The students observe all aspects of forensic laboratory operations and medicolegal death investigation. As they would in an apprenticeship, students progress at their own pace and are free to delve more deeply into areas that particularly excite their interest. Interactions with staff allow them to expand their knowledge of scientific, medical, and forensic issues.



- Maha Kadado American University of Science and Technology Beirut (July, August 2016)
- Sarah Kawssarani American University of Science and Technology Beirut (July, August 2016)
- Melissa Abi Rached American University of Science and Technology Beirut (July, August 2016)



Also participating in Tarrant County Medical Examiner's internship program in 2016 was a student from Belgium,

 Sona Harbish – Free University of Brussels (October, November 2016)

#### **Medical School Rotation**

The Tarrant County Medical Examiner's Office offers a month-long rotation for fourth-year medical students from qualifying educational institutions. These students get comprehensive exposure to autopsy processes, death investigation, and all aspects of forensic laboratory operation.



A rigorous schedule allows for students to spend time in each section of the forensic laboratory, in administration and investigations, and in morgue operations. One-on-one lectures given by specialized staff members provide depth and detail to the student's experience. The time spent in a comprehensive forensic facility offers educational opportunities that meet the requirements of any medical rotation. In 2015, students rotating through the Tarrant County Medical Examiner's Office were:

- Dr. Elliott Winters, UNT Health Science Center, Texas College of Osteopathic Medicine (January)
- Dr. Roshini Ramwani,-University of North Texas Health Science Center (February)
- Dr. Marissa Crowdis Des Moines University Osteopathic Medicine Center (April)
- Dr. Sarah Glogowski, UNT Health Science Center, Texas College of Osteopathic Medicine (August)