## **ANTHROPOLOGY**

FORENSIC PATHOLOGY

VITAL STATISTICS

## TRACE EVIDENCE

HISTOLOGY

MEDICAL TRANSCRIPTIONS

**FORENSIC DEATH INVESTIGATIONS** 

## **DRUG CHEMISTRY**

## TARRANT COUNTY MEDICAL EXAMINER



2019 ANNUAL REPORT

Serving Tarrant, Denton, Johnson & Parker Counties

TOXICOLOGY

**PHOTOGRAPHY** 

**HUMAN IDENTIFICATIONS** 

**AUTOPSY SERVICES** 

**LATENT PRINTS** 

DNA **EVIDENCE** 

## Accredited by:



Accreditation Council for Graduate Medical Education (ACGME)



ANSI National Accreditation Board (ANAB)



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, 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. 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

401 North Michigan Avenue Suite 2000 Chicago, IL 60611

Phone 312.755.5000 Fax 312.755.7498 www.acgme.org

2/4/2019



Fort Worth, TX 76104 Dear Dr. Peerwani,

200 Feliks Gwozdz Place

The Institutional Review Committee (IRC), functioning in accordance with the policies and procedures of the Accreditation Council for Graduate Medical Education (ACGME), has reviewed the information submitted regarding the following institution:

Tarrant County Medical Examiner's Office Fort Worth, TX

Institution: 8004801031

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

Status: Continued Accreditation Effective Date: 01/14/2019

The Review Committee commended the institution for its demonstrated substantial compliance with the ACGME's Institutional Requirements without any new citations.

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The ACGME must be notified of any major changes in the organization of the institution. When corresponding with the ACGME, please identify the institution 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).

Sincerely,

Olivia Orndorff, MSLIS Associate Executive Director Institutional Review Committee

oorndorff@acgme.org

Participating Site(s):



## CERTIFICATE OF ACCREDITATION

### **ANSI National Accreditation Board**

2000 Regency Parkway, Suite 430, Cary, NC 27518

This is to certify that

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

has been assessed by ANAB and meets the requirements of

### ISO/IEC 17025:2005

ANAB 17025:2005 Forensic Science Testing Laboratories Accreditation Requirements:2017

while demonstrating technical competence in the field of

### FORENSIC TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of tests to which this accreditation applies

Certificate Number: FT-0146

Valid to: 07/31/2023

Pamela L. Sale

Vice President, Forensics









## CERTIFICATE OF ACCREDITATION

### **ANSI National Accreditation Board**

2000 Regency Parkway, Suite 430, Cary, NC 27518

This is to certify that

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

has been assessed by ANAB and meets the requirements of

### ISO/IEC 17025:2005

ANAB 17025:2005 Forensic Science Calibration Laboratories Accreditation Requirements:2017

while demonstrating technical competence in the field of

### FORENSIC CALIBRATION

Refer to the accompanying Scope of Accreditation for information regarding the types of calibrations to which this accreditation applies

Certificate Number: FC-0010

Valid to: 07/31/2023

Pamela L. Sale

Vice President, Forensics









## 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 1st day of June, 2015

Many Nashwill J. Son Defor mo

President

Secretary-Treasurer

Bake LWay M.D.

Inspector

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.

## **TCME Staff**



## **TCME Staff**





Leticia Hidalgo



Burshauna Hill



Susan Howe



**Christy Humphries** 



Ayman Itani



Robert Johnson



ShaVonda K. Jones



Deatra Keele



Anne Koettel



Heather Kramer



Marc Krouse



Beryl Landry



Peggy Le



Connie Lewis



Jun Lumadilla



Brandon Mailand



Aria McCall



Arturo Menchaca



Roger Metcalf



Stacey Murthy



Michelle O'Neal



Tamikka Nelson





Lisa Garcia Nunez Constance Patton

## **TCME Staff**



Steve White

Traci Wilson

Cheryl Wheeler

**Christopher White** 



Adriana Wood

## **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

Stacey L. Murthy, M.D Deputy Medical Examiner

Shante Hill, M.D. Fellow

## Administration

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

Tracye K. Poirier Technical & Administrative Director

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

Kelly Clark, B.A.A. Business Manager

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

Dayna L. George Administrative Assistant IV

## **Human Identification Laboratory**

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

Dana Austin, Ph.D. Senior Forensic Anthropologist

ShaVonda Jones Latent Fingerprint Examiner

## Histology

Joe English, Jr. Forensic Histotechnician

Christy Humphries Forensic Histotechnician

## Forensic Death Investigation

## **Tarrant County Investigations**

Michael Floyd, B.S. Chief Forensic Death Investigator

John Briggs Deputy Chief Forensic Death Investigator

Stephen White Forensic Death Investigator II

Amy Renfro, B.S. Forensic Death Investigator II

Kyle Finney, B.A. Forensic Death Investigator II

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

Donald Smith Forensic Death Investigator I

Robert Cain Forensic Death Investigator I

Brandon Mailand Forensic Death Investigator I

Adriana Wood Forensic Death Investigator I

Jaxon Ward Forensic Death Investigator I

Tracy Vancil, B.S. *Investigative Clerk* 

Jamie Ables Investigative Clerk

Madison Sedlak Investigative Clerk

Dewain Stroebel Investigative Clerk

## **Denton County Investigations**

Troy Taylor, B.S. Senior Forensic Death Investigator

Robert Murphy Forensic Death Investigator

Julie Carriker, R.N. Forensic Death Investigator

Jennifer Hernandez, B.S. Forensic Death Investigator

Bryan Lee Forensic Death Investigator

Heidi Hess Forensic Death Investigator

Lindsay Hendrix PT Forensic Death Investigator

Andrea Crocker Executive Assistant

## Forensic Death Investigation continued Johnson County Investigations

Gary Morris Senior Forensic Death Investigator

Paul Brown Forensic Death Investigator

Alisha Koslowsky Forensic Death Investigator

Shaena Beaver Investigative Clerk

### **Parker County Investigations**

Bryan Wright Senior Forensic Death Investigator

Kevin Lanham Forensic Death Investigator

Brittany Smith Forensic Death Investigator

Bob Presney Forensic Death Investigator

Heather Casey Forensic Death Investigator

Danielle Huffman Forensic Death Investigator

## **Drug Chemistry and Toxicology**

Robert Johnson, Ph.D. Chief Toxicologist

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

Beryl Landry, B.S. Forensic Toxicologist III

Connie Lewis, B.S. Senior Forensic Toxicologist

Cheryl Wheeler, B.S. Forensic Toxicologist III

Leanne Hazard, M.S. Forensic Toxicologist III

Katie Scott, B.S, Forensic Toxicologist III

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

Jonathan Bishop, B.S. Senior Forensic Chemist

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

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

Sarah Skiles, B.S. Sr. Forensic Chemist/Technical Lead

## Morgue and Evidence Services

Traci Wilson Director of Morgue/Evidence Services

Glynn Dill Senior Autopsy Technician

Cynthia Esparza Autopsy Technician

Jaso Gaines Autopsy Technician

Michael Guthrie Autopsy Technician

Leticia Hidalgo Evidence Technician

Burshauna Hill Evidence Technician

Andre Sims Autopsy Technician

LeRon Warren Autopsy Technician

Christopher White Autopsy Technician

## **Criminalistics**

Susan Howe, Ph.D. Crime Laboratory Director

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

Heather Kramer, M.S. Senior Forensic Biologist

Peggy Le, B.S. Senior Forensic Biologist

Kristen Hammonds, B.S. Senior Forensic Biologist/CODIS Alt

Arturo Menchaca, M.S. Senior Forensic Biologist

Kira Tillman, B.S. Forensic Biologist

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

Anne Koettel, M.S. Senior Trace Analyst

Mateo Serfontein, B.S. Sr. Firearm & Toolmark Examiner, Technical Lead

Loandra Pellot Vazquez, M.A. Sr. Firearm & Toolmark Examiner

William Walker

\*\*Latent Fingerprint Examiner, Technical Lead\*\*

Larry Reynolds, Forensic Photographer

## Secretarial Services

Carol Walker

Maryann Abbott

Becky Beshay

Susan Daniel

Deatra Keele

Tamikka Nelson

Lisa Garcia Nunez

Monica Arellano

Ayman Itani

**Christie Smith** 

Exec. Asst./Public Information Officer

Medical Secretary/Transcriptionist

Medical Secretary/Transcriptionist

Medical Secretary/Transcriptionist

Medical Secretary/Transcriptionist

Medical Secretary/Transcriptionist

Records Manager

Records Secretary

Toxicology Secretary

Vital Statistics Coordinator

## Facility Building Engineer

Jun Lumadilla

Building Engineer



### Robert Johnson, PhD Sarah Skiles - Technical Leader Chief Toxicologist BREATH ALCOHOL DRUG CHEMISTRY John Harris - Technical Leader Aria McCall -Technical Leader TOXICOLOGY Christina Coucke-Garza Jonathan Bishop Michelle O'Neal Leanne Hazard Connie Lewis Beryl Landry Katie Scott Dayna George Admin Asst IV Constance Patton - Technical Leader Mateo Serfontein-Technical Leader Tarrant County Medical Examiner's Office and Forensic Laboratories William Walker - Technical Leader FORENSIC PHOTOGRAPHY D. Chris Heartsill, BS LATENT FINGERPRINTS FIREARM/TOOLMARK FORENSIC BIOLOGY Quality Manager Crime Lab Director Susan Howe, PhD **Business Manager** Kelly Clark Loandra Pellot Vazquez Kristen Hammonds Arturo Menchaca Heather Kramer Kira Tillman Peggy Le Technical and Administrative Dir. Nizam Peerwani, MD Chief Medical Examiner Tracye Poirier, B.S., MBA Roger Metcalf, DDO ANTHROPOLOGY Chief Human ID FINGERPRINTS Dana Austin, PhD Shavonda Jones Stacey Murthy, MD Deputy ME MORGUE SERVICES Director Morgue & Lab Services Traci Wilson Christopher White EVIDENCE Michael Guthrie Leticia Hidalgo Burshauna Hill Cynthia Esparza LeRon Warren Jaso Gaines **Andre Sims** Glynn Dill Tasha Greenberg, MD Marc Krouse, MD Deputy Chief ME Susan Roe, MD Deputy ME Deputy ME Chief Forensic Death Investigator INVESTIGATIVE CLERK John Briggs – *Supervisor* Michael Floyd INVESTIGATOR **Brandon Mailand** Michael Pollard Stephen White Adriana Wood Amy Renfro Robert Cain Jaxon Ward Kyle Finney Tracy Vancil Jamie Ables Joe English, Christy Humphries HISTOLOGY Richard Fries, DO Barrie Miller, MD Forensic Fellow Deputy ME SECRETARY SERVICES **Executive Assistant** TRANSCRIPTIONS Carol Walker Lisa Garcia Nunez RECORDS Monica Arellano

MEDICAL

Maryann Abbott

Tamikka Nelson

Becky Beshay Susan Daniel



Cheryl Wheeler

TRACE EVIDENCE

Larry Reynolds

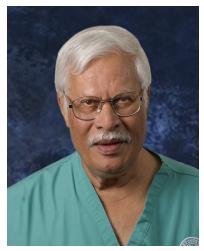
Madison Sedlak

Deatra Keele Ayman Itani **Dwain Stroebel** 

VITAL RECORDS

## **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 peerreviewed 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.

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## 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 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).

## Stacey Murthy M.D., Deputy Medical Examiner



Dr. Murthy graduated from Texas Woman's University with a Bachelors of Science in Chemistry (2008) and from the University of Texas Southwestern Medical School with a M.D. (2013). She completed her residency in Anatomic and Clinical Pathology at Baylor University Medical Center in Dallas, and accepted a fellowship in Forensic Pathology at Southwestern Institute of Forensic Science, completed in June 2018. Dr. Murthy is board certified in Anatomic and Forensic Pathology and fully licensed to practice medicine in the state of Texas.

In July 2018, Dr. Murthy accepted the position of Deputy Medical Examiner at the Tarrant County Medical Examiner's Office.

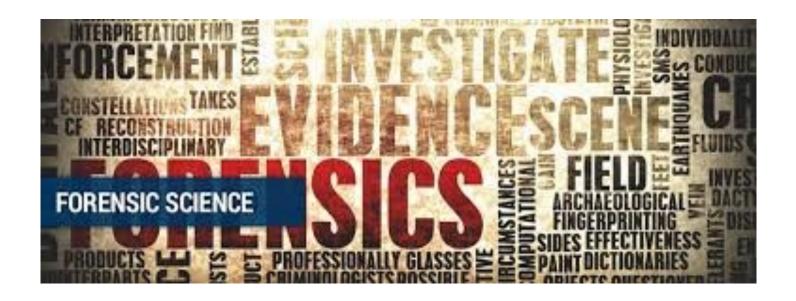
She is a member of the National Association of Medical Examiners (NAME), College of American Pathologists (CAP), and American Society of Clinical Pathology (ASCP).

## Shante' Hill, M.D., Forensic Fellow



Dr. Hill graduated from University of Louisiana at Monroe with a Bachelor of Science in Clinical Laboratory Science, Cum Laude and worked as a medical technologist as she began her preparation for medical school. She earned her M.D. from the University of South Alabama College of Medicine in Mobile, Alabama and completed residency at the University of South Alabama Hospitals. She accepted her fellowship with the Tarrant County Medical Examiner's Office in July 2019. Dr. Hill is a member of the National Association of Medical Examiners (NAME), American Society for Clinical Pathology (ASCP),

College of American Pathologists (CAP), United States and Canadian Academy of Pathology (USCAP), Christian Medical and Dental Associations (CMDA), American Medical Association (AMA) and National Medical Association (NMA).











## Administration

#### Tracye Poirier, Technical & Administrative Director



Tracye Poirier received her Bachelors of Science degree in Chemistry from the University of Texas at Arlington in 1991 She has been working in the forensics field since 1992. She began her career at Southwestern Institute of Forensic Science in Dallas as a Serology Lead Technician and then advanced to a Chemist II in Toxicology. She also served as a Certifying Scientist for SmithKline Beecham Clinical Laboratories and Drug Chemistry Supervisor for the Mississippi Crime Laboratory before joining the

Tarrant County Medical Examiner's Office in 2000 as a Senior Forensic Toxicologist. She also served as a Senior Forensic Chemist before assuming the Business Manager role in 2009 after earning her M.B.A. degree with an emphasis in Strategic Leadership from the University of Dallas. Her background in the sciences provides her with unique insight into managing a Medical Examiner's office. She was promoted to the Technical & Administrative Director in 2019. She is a member of the American Academy of Forensic Sciences.



#### 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.

#### Kelly Clark, Business Manager



Kelly Clark began her service with the Tarrant County in July 2017. She worked as a Grant Auditor for the Auditor's Office before accepting employment with the Tarrant County Medical Examiner's District in April of 2019. Kelly currently serves as the Business & Technical Operations Manager for TCME. In this role she manages all financial accounting for all billing, accounts receivable, and completes bank deposits. She manages payroll as Time Administrator for TCME, budgets and purchase approvals, out-of-state travel arrangements and all other functions of the business department for TCME.

Prior to her employment at TCME, Kelly has 9 years of business management and financial experience working for school district administrative offices. Kelly attended Tarrant County College and received her Associate of Accounting degree, then went on attend Texas Wesleyan University and obtained her Bachelor of Business Administration in Accounting.

#### Carol Walker, Executive Assistant/Public Information Officer



Accepting employment with the Tarrant County Medical Examiner in 2005, Carol 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.

#### 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.

## 2019 Statistics

## **2019 Statistical Summary**

12,857

Reported deaths						
Jurisdiction terminated					9,059	70%
Jurisdiction accepted					3,798	
within the TCME District			3,157			25%
scenes investigated	1,552	49%				
outside the TCME District			641			5%
Bodies brought to facility	3,843					
Medical procedures					3,798	
External examination			1,735	46%		
Partial autopsy			443	12%		
Complete autopsy			1,620	43%		
TCME District Deaths certified					3,148	
Natural			1,557		•	
Accident			914			
vehicular		34%				
non-vehicular		66%				
Suicide			426			
Undetermined			99			
Homicide			152			
Non-Human Remains	9					
Human identification					836	
Successfully identified			832	99%		
by observation (visual)	33	4%				
by fingerprints	698	83%				
by combination	4					
by odontology	39	5%				
by dna	17	2%				

12

7

22

1%

1%

3%

by anthropology

by other means

Pending identification

Non-Human

## Manner of Death by County



2019 Tarrant County Deaths										
Manner of Death Cases %										
Natural	1222	14.4%								
Accidental	676	8.0%								
Suicide	283	3.3%								
Homicide	132	1.6%								
Undetermined	80	0.9%								
Non-human remains	9	0.1%								
Jurisdiction terminated	6070	71.6%								
Total	8472	100%								

2019 Denton County Deaths									
Manner of Death Cases %									
Natural	205	8.1%							
Accidental	156	6.1%							
Suicide	99	3.9%							
Homicide	16	0.6%							
Undetermined	14	0.6%							
Non-human remains	0	0.0%							
Jurisdiction terminated	2048	80.7%							
Total	2538	100.0%							





2019 Parker	County	Deaths
Manner of Death	Cases	%
Natural	65	12.2%
Accidental	31	5.8%
Suicide	19	3.6%
Homicide	3	0.6%
Undetermined	3	0.6%
Non-human remains	0	0.0%
Jurisdiction terminated	412	77.3%
Total	533	100%

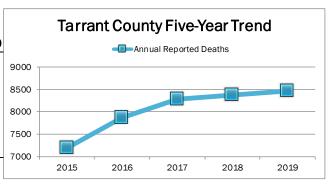
2019 Johnson County Deaths										
Manner of Death	Cases	%								
Natural	65	9.7%								
Accidental	51	7.6%								
Suicide	25	3.7%								
Homicide	1	0.1%								
Undetermined	2	0.3%								
Non-human remains	0	0.0%								
Jurisdiction terminated	529	78.6%								
Total	673	100%								



## **Five-Year Trends**

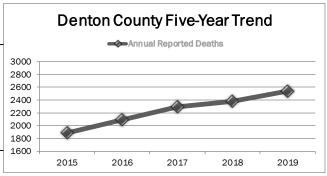
#### Tarrant County, 2015-2019

Manner of Death	2015	2016	2017	2018	2019
Natural	1060	1200	1230	1221	1222
Accidental	530	637	663	668	676
Suicide	235	245	267	284	283
Homicide	105	134	143	107	132
Undetermined	79	76	60	77	80
Non-human remains	2	4	4	7	9
Jurisdiction terminated	5187	5572	5913	6016	6070
Total	7198	7868	8280	8380	8472



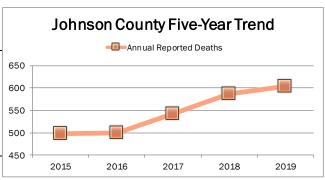
#### Denton County, 2015-2019

Manner of Death	2015	2016	2017	2018	2019
Natural	180	153	159	174	205
Accidental	112	142	166	147	156
Suicide	74	88	98	87	99
Homicide	10	15	13	22	16
Undetermined	11	12	11	12	14
Non-human remains	1	0	0	1	0
Jurisdiction terminated	1502	1683	1844	1932	2048
Total	1890	2093	2291	2375	2538



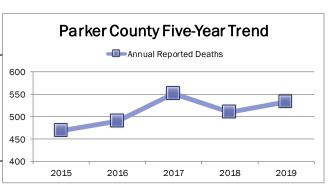
#### Johnson County, 2015-2019

Manner of Death	2015	2016	2017	2018	2019
Natural	72	67	57	81	65
Accidental	25	35	33	43	51
Suicide	13	16	21	25	25
Homicide	4	2	3	4	1
Undetermined	4	1	3	8	2
Non-human remains	0	0	0	0	0
Jurisdiction terminated	424	466	487	477	529
Total	542	587	604	638	673



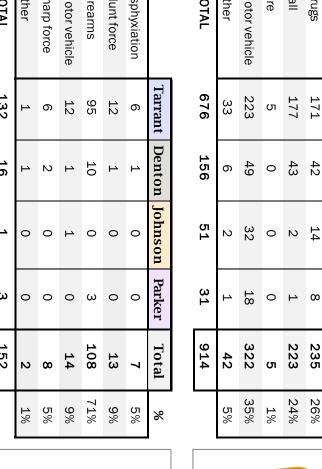
#### Parker County, 2015-2019

Manner of Death	2015	2016	2017	2018	2019
Natural	72	69	79	76	65
Accidental	40	38	43	27	31
Suicide	29	32	19	24	19
Homicide	2	2	4	1	3
Undetermined	4	3	2	3	3
Non-human remains	0	0	0	0	0
Jurisdiction terminated	322	345	404	379	412
Total	469	489	551	510	533



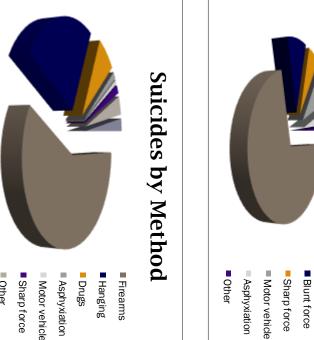
## Accidents, Homicides, and Suicides

							,	_									1
TOTAL	Other	Sharp force	Motor vehicle	Firearms	Blunt force	Asphyxiation		TOTAL	Other	Motor vehicle	Fire	Fall	Drugs	Drowning	Asphyxiation	Alcohol	
132	1	0	12	95	12	0	Tarrant	676	33	223	បា	177	171	26	23	18	Tarrant
16	1	2	Н	10	Н	1	Denton	156	6	49	0	43	42	9	4	ω	Denton
Ь	0	0	Н	0	0	0	Johnson	51	2	32	0	2	14	0	0	Ь	Johnson
ω	0	0	0	ω	0	0	Parker	31	1	18	0	Н	œ	Н	Ь	Ь	Parker
152	2	œ	14	108	13	7	Total	914	42	322	បា	223	235	36	28	23	Total
	1%	5%	9%	71%	9%	5%	%		5%	35%	1%	24%	26%	4%	3%	3%	%



**Homicides by Method** 

■ Firearms



Hanging

Jumping

0

0 0 ω

Jumping

Firearms

163 68 10

15

14

58% 24%

7% 1% %

102 249 Asphyxiation

19

10

0

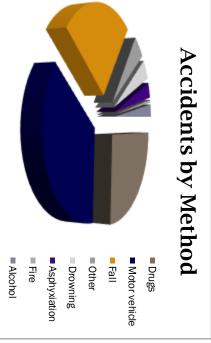
2

Tarrant | Denton | Johnson

Parker

**Total** 

Motor vehicle Sharp force





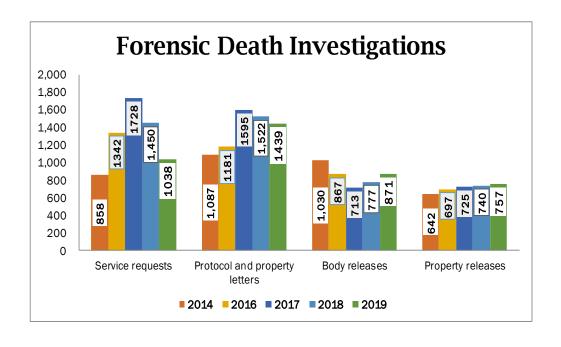
# Departments in Depth

## 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 **12,857 in 2019**.

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.



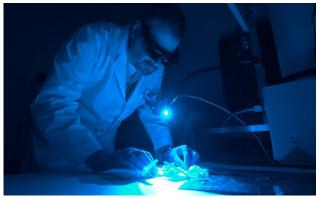


## **Human Identification Services**





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.

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 2014, the Human Identification Laboratory has identified more than 3,528 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

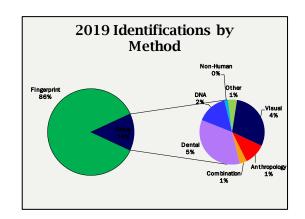
• Bill Walker

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 86%) of unidentified persons at the Tarrant County Medical Examiner's Office are identified via fingerprint analysis. Identifications made this way are generally complete within 24 hours of the decedent's arrival.



#### **Identification Process**

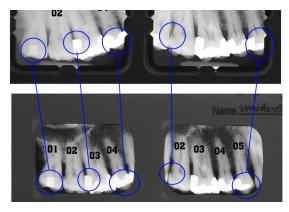


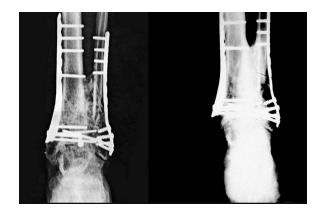
Identification The Human Laboratory's identification protocol normally begins with a fingerprint inquiry to determine if the decedent's fingers are suitable for fingerprinting. If they are, the lab can access the A.F.I.S. and/or the Generation Identification system (NextGen or N.G.I.), as well as request 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.

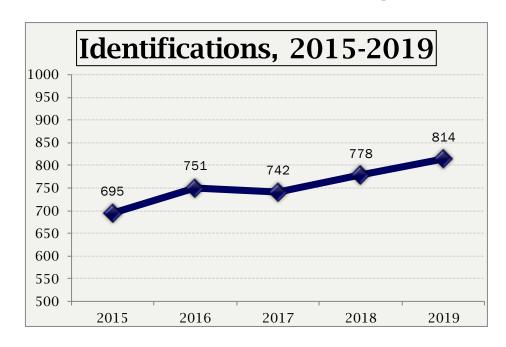
If identification cannot be made, the Human Identification Laboratory enters what information it has for the unidentified remains into the clearinghouse and the <u>National Crime Information Center's Unidentified Person File</u> within ten working days, in compliance with the Texas Code of Criminal Procedure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

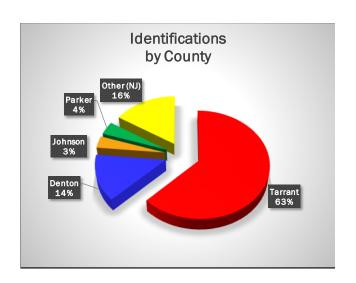
All Texas law enforcement agencies are required to enter information about all unidentified bodies into the clearinghouse and the National Crime Information Center Unidentified Person File. A law enforcement agency shall, not later than the 10th working day after the date the death is reported to the 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 National Missing and Unidentified Person System (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 Method	Average Time to
identification Method	Identify (days)
Anthropology	27.6
Dental	3.7
DNA	30
Fingerprints	0.9
Visual	0.9





### 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 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.

## **Drug 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.

#### **Breath Alcohol 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 office in 1983, the

toxicology laboratory has subsequently expanded to include spectrometry, gas chromatography, and high-pressure liquid chromatography analysis. The 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



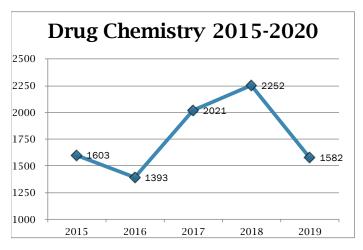
mass

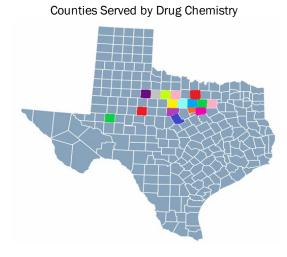


assurance programs.

## **Drug Chemistry**

019 saw a decrease in casework by approximately 42% due to the change in the marijuana laws. The average turnaround time was 30 days to complete a case.





Average cases per month, 2019

132

Highest monthly caseload (2019

Lowest monthly caseload (2019)

148
5-year average cases/month

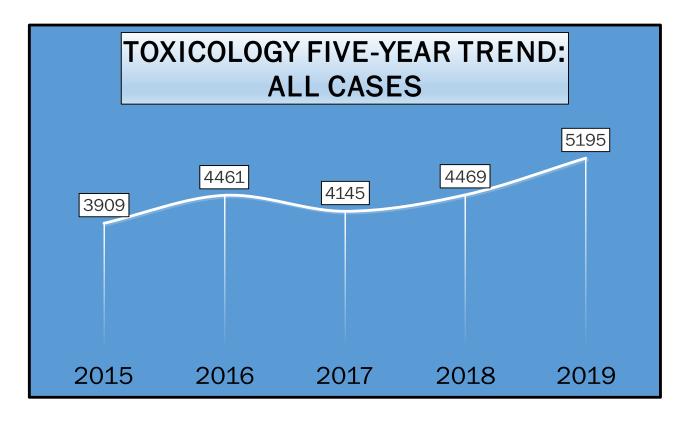
## **Breath Alcohol**

#### Accomplishments of Technical Supervisor:

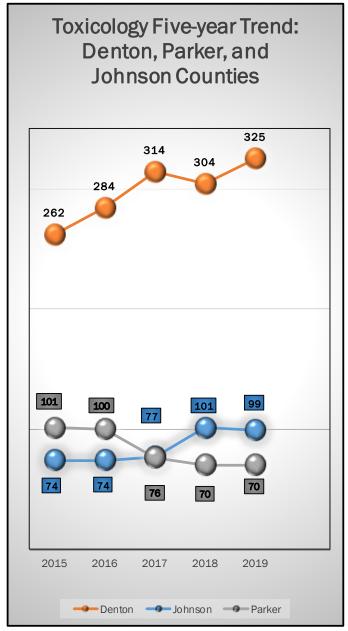
- Inspected and maintained 19 testing locations at 15 agencies monthly
- Re-certified over 207 Breath Test Operators
- Prepared 448 affidavits for Administration License Revocation hearings
- Prepared 90 document requests subpoena/discovery motion
- Testified in 29 trials
- Number of completed breath tests: 1416

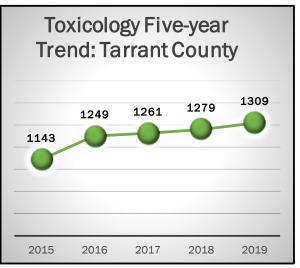
## **Toxicology**

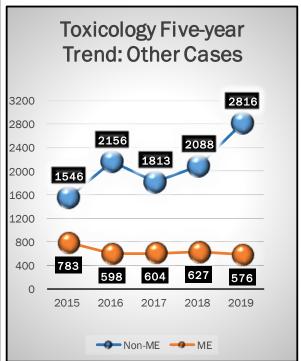
n 2019, Toxicology cases from the four counties in the Tarrant County Medical Examiner's District totaled 1803 up 2.8% from 1754 the previous year, and accounting for 35% of all Toxicology cases. Other medical examiner (576) and outside agency (2816) cases bring the total cases completed by the Toxicology laboratory in 2019 to 5195, representing an 16.25% increase over 2018's total of 4469.



Outside cases, which typically include DWI, DFSA (drug-facilitated sexual assault), and defense attorney cases, increased by 35% from 2088 cases in 2018 to 2816 cases in 2019. DWI cases continue to be more complex as fewer cases involve alcohol analysis only and more service requests are made for court-ordered retest. The average turnaround time to complete a toxicology service request was 19 days (17 days in 2018).







						2019							
_									Ot	her	Total		
	2015	2016	2017	2018	Tarrant	Denton	Johnson	Parker	ME	Non-ME	TOtal		
JAN	329	405	427	477	109	35	6	7	39	393	589		
FEB	306	395	385	314	97	24	5	4	32	293	455		
MAR	317	407	353	377	119	23	9	8	36	179	374		
APR	311	375	354	340	101	28	10	11	26	234	410		
MAY	301	358	372	388	101	26	6	6	45	220	404		
JUN	306	370	351	330	106	20	9	1	40	179	355		
JUL	354	404	316	322	110	24	3	8	38	250	433		
AUG	308	412	345	324	115	24	16	3	41	230	429		
SEP	255	393	298	307	107	24	10	7	50	219	417		
OCT	377	273	288	460	108	30	11	5	71	218	443		
NOV	317	341	323	442	120	28	6	7	68	209	438		
DEC	428	328	333	388	116	39	8	3	90	192	448		
TOTAL	3909	4461	4145	4469	1309	325	99	70	576	2816	5195		

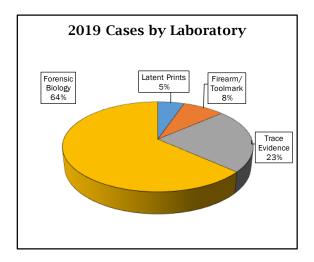
## **Criminalistics**

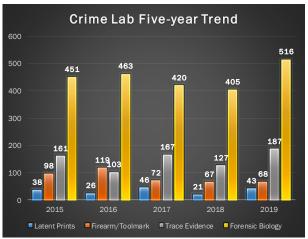
ince 1989, the Tarrant County Medical Examiner's Office has operated a full–service crime laboratory, serving the needs of not only its medical examiners, but also of law enforcement agencies and district attorney's offices in North Central Texas and throughout the United States.

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 ANAB International accreditation to include imprint/impression evidence comparisons (footwear and tire tread examinations),

Criminalistics Cases by Laboratory	Latent Prints	Firearm/	Trace	Forensic
		Toolmark	Evidence	Biology
Total reports issued in 2019	43	68	187	516
Reports issued within TCMED	38	58	164	439
Reports issued outside TCMED	5	10	23	77
TCME or law enforcement on TCME case	13	12	83	34
Non-ME case	29	18	87	481







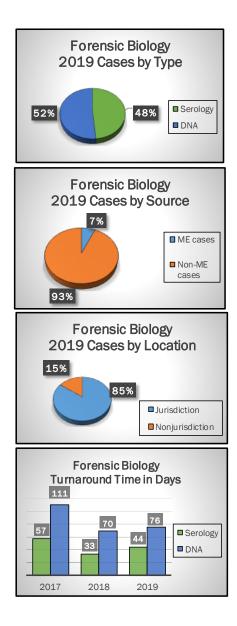
## Forensic Biology

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 516 cases in 2019. 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). This is a 27.4% increase from 405 cases reported in 2018.



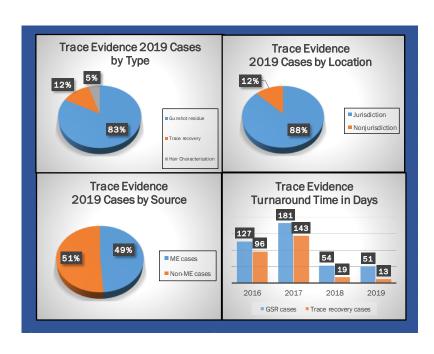
## Trace Evidence

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 187 cases in 2019. 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). This was a 47% increase from the 127 cases reported in 2018.

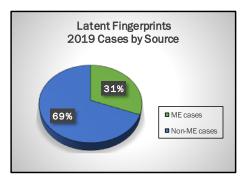


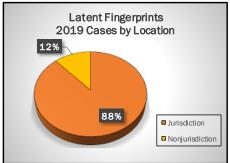


## Latent Fingerprints

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 43 cases in 2019. These cases are categorized at right by *source* (requestor) and *location* (within or without the Tarrant County Medical Examiner's District). This is a 50% increase from the reported 21

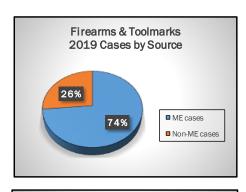


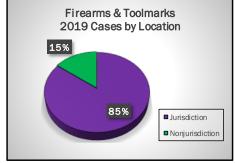


## Firearms and Toolmarks

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 68 cases in 2019. These cases are categorized at right by *source* (requestor) and *location* (within or without the Tarrant County Medical Examiner's





## 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, laboratory is capable making photographs using ultraviolet and infrared techniques. Image enhancement can also be performed. Pictures, enlargements, and other services are provided to medical individuals and examiners. courts. research-based educational or presentations.



The Forensic Photography laboratory produced 172,076 autopsy and scene photographs and worked on a total of 2101 cases in 2019. An average of 14,340 photographs were produced by the laboratory monthly.



## Forensic Histology

istological examination is the microscopic study of tissues and cells.

The histology department assists the pathologists in determining the cause of death by preparing slides for microscopic examination. After processing and sectioning the tissue, the histologist submits the completed slide to the forensic pathologist for examination. Some cause-of-death determinations rely solely upon the examination of the decedent's tissues and organs. The histology plays a vital role in helping the pathologist with identifying disease processes and certain tissue changes that occur in response to trauma, lifestyle habits and other variables.

In 2019, the Forensic Histology laboratory worked 2291 cases which consisted of 38,096 blocked tissues and 7,527 microscopic slides for examination for the counties served by the Tarrant County Medical Examiner District.



## Organ & Tissue Procurement

Organ Tissue Report	January 1, 2019	to	December 31, 2019		
	Organs			Tissues	
Bladder	0	0%	Adrenal(s)	8	2%
Heart(Organ)	20	19%	Bone	62	19%
Intestines	2	2%	Cartilage	1	0%
Kidney(s)	31	30%	Dura Mater	0	0%
Liver	25	24%	Eyes	94	28%
Lung(s)	10	10%	Corenea(s)	82	25%
Pancreas	9	9%	Globe(s)	12	4%
Reproductive	0	0%	Fascia	31	9%
Male	0	0%	Heart(Valves)	2	1%
Female	0	0%	Peritoneal Membrane	0	0%
Other: Spleen	6	6%	Tendon(s)	41	12%
TOTAL	103		Total	333	

## Administrative & Facility Support

#### **Secretarial Services**

Secretaries for the medical examiner's office work directly with the public, assisting bereaved families, law enforcement personnel, judicial authorities, healthcare providers, and funeral directors through what 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.



# Knowledge Sharing

## Continuing Professional Development and Continuous Medical Education

Nizam Peerwani, MD

"Think back to when you learned how to ride a bike. You probably didn't master this skill by listening to a series of riveting lectures on bike riding, i.e. through "passive learning". Instead, you tried it out for yourself, made mistakes, fell down a few times, picked yourself back up, and tried again. When mastering an activity, there's no substitute for the interaction and feedback that comes from practice – that's what active learning is all about!"

#### Overview

It is estimated that the doubling time of medical knowledge in 1950 was 50 years; in 1980, 7 years; and in 2010, 3.5 years. In 2020, it is projected to be 0.2 years—just 73 days. Students who began medical school in the autumn of 2010 will experience approximately three doublings in knowledge by the time they complete the minimum length of training (7 years: medical school + residency) needed to practice medicine. Students who graduate in 2020 will experience four doublings in knowledge. What was learned in the first 3 years of medical school will be just 6% of what is known at the end of the decade from 2010 to 2020.

#### Continuing Professional Development

The first reported Continuing Medical Education (CME) course took place in 1934; however, only in the 1960s did CME start to be discussed as a coherent body of learning encompassed in the concept of Continuing Professional Development (CPD). In other words, CME is rapidly evolving into competency-based continuing professional development (CPD) and this is driving change in self-directed CPD programs undertaken by individual practitioners as well as CPD programs or frameworks offered by CPD educators. This progression is being led by many factors including the rapid change in medical knowledge and medical practitioners along with changes in patients and society, healthcare systems, regulators and the political environment.

A variety of CPD definitions have been offered: "A continuing process, outside formal undergraduate and postgraduate training, that allows individual doctors to maintain and improve standards of medical practice through the development of knowledge, skills, attitudes, and behavior. CPD should also support specific changes in practice."



#### CME v. CPD

What is the difference between CME and CPD? Table-1 illustrates some of the major differences:

Table-1: CME v. CPD

CME	CPD
Episodic interventions deigned to	Lifelong based on ongoing self-
address the educational needs of	assessments designed to address the
groups of learners.	educational needs of individuals
Generally, teacher-centered or	Generally individual centered or self-
driven. Lecture format.	centered – propelled by desire or
	motivation to learn and expand
	personal knowledge-base
Principally encompasses the	Comprehensive in scope. Encompasses
clinical domain	the clinical domain as well as practice
	management, and leadership in case
	management
Lecture-based format (passive	Innovative formats to promote active
learning)	learning
Conducted in a formal setting	Conducted in variety of other formats
	other than formal setting
Passive Learning: Overall Retention	Active Learning: Overall retention> 50%
< 20%.	
Material presented generally not	Material learnt from national
"peered reviewed" e.g. "Oral	respectable "peer-reviewed" journals
Presentations" at the academy.	are a reliable source of knowledge,
Papers for presentation are	such NEJM, Lancet, JAMA, BMJ and
accepted by submission of	many official professional
"abstracts" and not peered	organizational publications. Beware of
reviewed unless later submitted for	publication in "Open Forum" internet
publication	platforms. Beware of "Google MD".
CMEs are required for professional	CPDs are not required for professional
license renewal. Source of revenue	license renewal. There is no fee. It is
for State as well as source of	process of self-improvement or life -
revenue for organizations such as	long learning propelled by self-
Accreditation Council for	motivation.
Continuing Medical Education	
(ACCME). The ACCME accredits	
over 2,000 CME providers as	
approved for offering continuing medical education programming	
and courses. Enormous revenues	
are generated by ACCME.	
are generaled by ACCME.	

CMEs are required for professional license renewal. Source of revenue for State as well as source of revenue for organizations such as Accreditation Council for Continuing Medical Education (ACCME). The ACCME accredits over 2,000 CME providers as approved for offering continuing medical education programming and courses. Enormous revenues are generated by ACCME.

CPDs are not required for professional license renewal. There is no fee. It is process of self-improvement or life - long learning propelled by self-motivation.

#### Examples of CME:

- Attendance at:
  - Tuesday Morning
     Conference at TCME
  - Oral presentations at academy meetings

#### Examples of CPD:

- Tuesday Morning Conference Presentation at TCME or elsewhere.
- Active participation in:
  - Journal Club
  - Morning Case Mortality Meeting
  - Multi-discipline Case Peer Reviews ("Critical Case Conference")
  - Multi-discipline Hospital Mortality
     Conference
  - Multi-discipline Child Fatality Conference
- Publication in peer review journals

In other words, CPD is how a physician maintains, improves and broadens the knowledge and skills and develops the personal qualities required in his or her professional live. It is self-driven. It is a holistic commitment to structured skills enhancement and personal or professional competence and a conscious updating of professional knowledge and the improvement of professional competence throughout the working life. Unlike no other profession, a physician has both the legal and ethical responsibility of ensuring that no harm is done.

#### For Us as Forensic Physicians:

For a medical examiner, it is imperative that what is presented to the judicial system is based on current empirical knowledge, and not based on what he or she learnt in a medical school or a residency/fellowship program, or based on "my experience" or on conjecture. We practice "evidence-based medicine" – this is not a new concept.

Participation in a CPD program is a revalidation process that ensures that a licensed doctor remains current. In the setting of forensic medicine, revalidation process affirms that a duly appointed medical examiner practices in accordance with internationally accepted performance standard as enumerated in the NAME Autopsy Performance Standards.



These standards reflect the best practice and are based on accepted forensic concepts, empirical knowledge and forensic models. These standards, however, lag because of accelerated proliferation of new knowledge, new technology, and new techniques – due to explosive increase in the knowledge. NAME recognizes this. Hence, NAME dubs these standards as "minimum" and encourages medical examiner offices to reach for higher goals.

In summary, the importance of continuing professional development should not be underestimated – it is a career-long obligation for practicing professionals in all fields of medicine, especially in the field we practice – forensics.

July 12, 2020

- <sup>1</sup> Densen, P. Challenges and Opportunities Facing Medical Education. Trans Am Clin Climatol Assoc. 2011; 122: 48–58.
- <sup>2</sup> Continuing medical education came into being in the United States in the late twenties when the mediocrity of the initial medical training of practicing physicians was recognized. Medical schools created a classical system of continuing education; the first mandatory program was initiated in urology in 1934.
- <sup>3</sup> Hippocrates, the remarkable Greek physician from the island of Kos, as early as 5<sup>th</sup> century B.C. was notable for his strict professionalism, discipline, and rigorous practice and for promoting the importance of applying empirical evidence to reach a clinical diagnosis.

# 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 2019 events at which staff of the Tarrant County Medical Examiner's Office shared their expertise:



# Southlake Police Department January 2019

Robert Johnson, Ph.D.

"Drugs and Driving"



Multiple staff participated as technical or lead assessors for the ANSI-National Accreditation Board at various laboratories locations throughout the

United States.

**Chris Heartsill** 

Dr. Susan Howe

Michelle O'Neal

**Cheryl Wheeler** 



University of North Texas Graduate School of Biological Sciences April 2019

#### Susan R. Howe, Ph.D.

"Toxicology Overview" & "Forensic Drug Chemistry"



American University of Science & Technology Beirut, Lebanon April 2019 & November 2019

#### Nizam Peerwani, M.D.

"Forensic Medicine" & "Introduction to Criminalistics"



The Association for Mass Spectrometry & Advances in the Clinical Lab
Palm Springs, CA
April 2019

#### Robert Johnson, Ph.D.

"Forensic Toxicology for Beginners"

"Advanced Forensic Toxicology"



Tarrant County Medical Examiner's Office Grand Rounds Conference

Various Topics - Tuesday mornings during the year

Dana Austin—Anthropology

Dr. Dana Austin, Michelle O'Neal Jonathan Bishop—Anthropology Field Recovery Team

Chris Heartsill—Quality Management

Teshia Kyser—Trauma Support Services

Ronald Singer—Passion Crimes

Dr. Nizam Peerwani—Forensic Pathology

Dr. Susan Roe—Forensic Pathology

Dr. Richard Fries- Death Certificates



Tarrant County District Attorney Forensic Academy

Hurst, TX

September 2019

Dr. Susan Howe

"Laboratory Quality Assurance"



Breath Test Operator Annual Renewal Classes
September 2019

Sarah Skiles



# Society of Forensic Toxicologists

### October 2019

#### **Robert Johnson**

"Best Practices for Investigation of Overdose Deaths"



Abu Dhabi Forensic Training
2019 Program

Dr. Nizam Peerwani, Dr. Susan Roe and Dr. Richard Fries

"Forensic Pathology"

Dr. Robert Johnson and Aria McCall

"Forensic Toxicology"

**Chris Heartsill** 

"Quality Management"

## 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
71st Annual Meeting: Baltimore, MD
February 2019

Nizam Peerwani, M.D. Robert Johnson, Ph.D.

Marc Krouse, M.D. Roger Metcalf, D.D.S; J.D.

Tasha Greenberg, M.D. Dana Austin Ph.D.

Tracye Poirier, MBA Heather Kramer, M.S.



Tarrant County Education Center March 2019

Deatra Keele

"Adobe Content Author"



Tarrant County Sheriff's Office March 2019 Michael Floyd "Report Writing"



Texas Commission on Law Enforcement

March 2019

John Briggs

"Cultural Diversity"



Tritech Forensics
April 2019

William Walker

"Analysis of Distortion in Latent Prints"



Texas Commission on Law Enforcement

**April 2019** 

John Briggs and Stephen White

"Child Safety Check Alert List, Civilian Interaction,
Distracted Driving for Law Enforcement, and Use of Force"



North Central Texas Council of Government April 2019

Michael Floyd and John Briggs

"85th Legislative Session Legal Updates"



# Southwestern Association of Toxicologists May 2019

Aria McCall

Annual Spring Conference - Houston, TX



Forensic Technology Center of Excellence

National Institute of Justice

May and June 2019

Constance Patton Kristen Hammonds

Heather Kramer Peggy Le

Arturo Menchaca Kira Tillman

Specialized Probabilistic Genotyping Courses



Texas Commission on Law Enforcement

May 2019

John Briggs

"Social Media Networking"

"Special Investigative Topics"



Society of Forensic Toxicologists

May 2019 - Dallas, TX

Robert Johnson, Ph.D. and Aria McCall

"Fluid Toxicology"



Association of Firearm and Tool Mark Examiners May 2019

**Mateo Serfontein** 

Loandra Pellot-Vazquez

Annual Conference - Nashville, TN



ANSI-National Accreditation Board

May 2019

Susan Howe, Ph.D.

ISO/IEC 17025:2017 and AR3125 Assessor Training



Alamo Area Council of Governments

June 2019

**Don Smith** 

"Civilian Interaction"



San Diego Police Department and California

Department of Justice

June 2019

Arturo Menchaca

5th Annual STRMix Workshop - San Diego, CA



FBI- CODIS June 2019

Constance Patton Kristen Hammonds

Heather Kramer Peggy Le

"Annual Review of DNA Data Accepted at NDIS"

Kristen Hammonds

"CODIS 8.0 Admin Training"



Texas Commission on Law Enforcement

June 2019

John Briggs

"ADA Laws & Regulations"

"Human Trafficking"



The McCrone Group

June 2019

Vicki Hall

"Trace Evidence Analysis using Polarized Light Microscopy"



# Texas Commission on Law Enforcement July 2019

Michael Floyd: "Cultural Diversity"

"Crisis Communication"

"Open Carry Legal Update"

John Briggs: "Courthouse Security"

"Identity Theft"

Robert Cain: "Legislative Updates"

"Crimes Against Persons with

Disabilities"



Research Training Institute
July 2019

Aria McCall

"Emerging Opioid Threat"



Drug Enforcement Administration
August 2019

Christina Coucke-Garza

"The Latest in Instrumental Analysis"



# Alcohol Testing Alliance and Texas DPS August 2019

Sarah Skiles

Annual Conference—New Braunfels, TX

American Board of Medicolegal Death Investigator



August 2019

Stephen White

**Robert Cain** 

Annual Medicolegal Death Investigations Certification Training Course—St. Louis, MO



Association of Forensic DNA Analysts and Administrators

August 2019

Kristen Hammonds

Peggy Le

Kira Tillman

Annual Summer Conference—Houston, TX



Center for Disease Control

August 2019

Adriana Wood

"Death Scene Investigation after Natural Disasters"





#### Texas Commission on Law Enforcement

#### August 2019

Robert Cain: "Crisis Communication"

"Dating Violence Awareness"

"Sexual Assault Offender Dynamics"

"Strangulation"

"Protective Order Issuance"

John Briggs: "Missing & Exploited Children"

"Asset Forfeiture"

"Off-Duty Safety"

"Use of Force"

"Ethics"



Tarrant County SANE / SART Group

August 2019

Susan Howe, Ph.D.

**Heather Kramer** 

Kira Tillman

3rd Quarter Meeting—Fort Worth, TX



Alamo Area Council of Governments

September 2019

**Don Smith** 

"Basics of Stalking Investigations"





Robert F. Borkenstein Training September 2019 - Long Beach, CA

Leanne Hazard

**Connie Lewis** 

**Katie Scott** 

"Effects of Drugs on Human Performance & Behavior"



Hennepin County ME & Minnesota Coroners & Medical Examiner - Association Forensic Seminar September 2019

Dr. Susan Roe

**Annual Conference** 



National Society of Histotechnology

September 2019

**Christy Humphries** 

45th Annual Conference—New Orleans, LA



October 2019

Michael Floyd "Civilian Interaction"





Society of Forensic Toxicologists

October 2019

Robert Johnson, Ph.D.

**Beryl Landry** 

**Connie Lewis** 

Aria McCall

**Katie Scott** 

Annual Conference - San Antonio, TX



Southwestern Association of Forensic Scientists

October 2019

Michelle O'Neal

Annual Conference - Austin, TX



Forensic Technology Center of Excellence

National Institute of Justice

October 2019

Vicki Hall

Anne Koettel

Bill Walker

"Portable Advanced 3D Imaging for Footwear and Tire Impression Capture"





# North Central Texas Council of Governments October 2019

Michael Floyd

"Traffic Incident Management"

TCSART

Tarrant County SANE / SART Group

October 2019

Susan Howe, Ph.D.

**Heather Kramer** 

4th Quarter Meeting—Fort Worth, TX



Texas Department of Public Safety

November 2019

Sarah Skiles

Regional Technical Supervisor Meeting—Fort Worth, TX



Alamo Area Council of Governments

November and December 2019

**Don Smith** 

"Family Violence"

"Informed Response—Sexual Assault"



#### FBI- CODIS

November 2019

**Constance Patton and Kristen Hammonds** 

2019 DNA Technical Leader Summit & CODIS Conference Norman, OK



Forensic Technology Center of Excellence

National Institute of Justice

November 2019

Vicki Hall

**Anne Koettel** 

"Rapid and Effective Identification of Organic and Inorganic Gunshot Residues"



**Texas Forensic Associates** 

December 2019

**Larry Reynolds** 

"Forensic Digital Photography: UV/IR Applications"



**Texas Health and Human Services** 

December 2019

**Christie Smith** 

TxEver Vital Statistics Annual Conference—Austin, TX





**ANSI-National Accreditation Board** 

December 2019

**Heather Kramer** 

ISO/IEC 17025:2017 and AR3125 Assessor Training



Texas Commission on Law Enforcement

December 2019

Stephen White

"Courthouse Security"

"Identity Theft Crimes" and "Child Safety Check Alert List"



Fort Worth Police Department Crime Laboratory

December 2019

**TCME Staff** 

"Ethics Training"



**Research Training Institute** 

2019

Jonathan Bishop

**Cheryl Wheeler** 

"Reversed Phase Mobile Phases: Selection and Selectivity Considerations"

Christina Coucke-Garza

"Seized Drugs"



# **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 and 2017, 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.

### **Student Internships 2019**

Brielle Balducci—Breath Alcohol

Miranda Ehlers — Anthropology

Khristyn Howard—Pathology Research

Fayla Smith—Drug Chemistry

#### **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.

## 2019 Program



Dr. Anna Bashmakov



Dr. Theodora Browne



Dr. Emily Tutt