



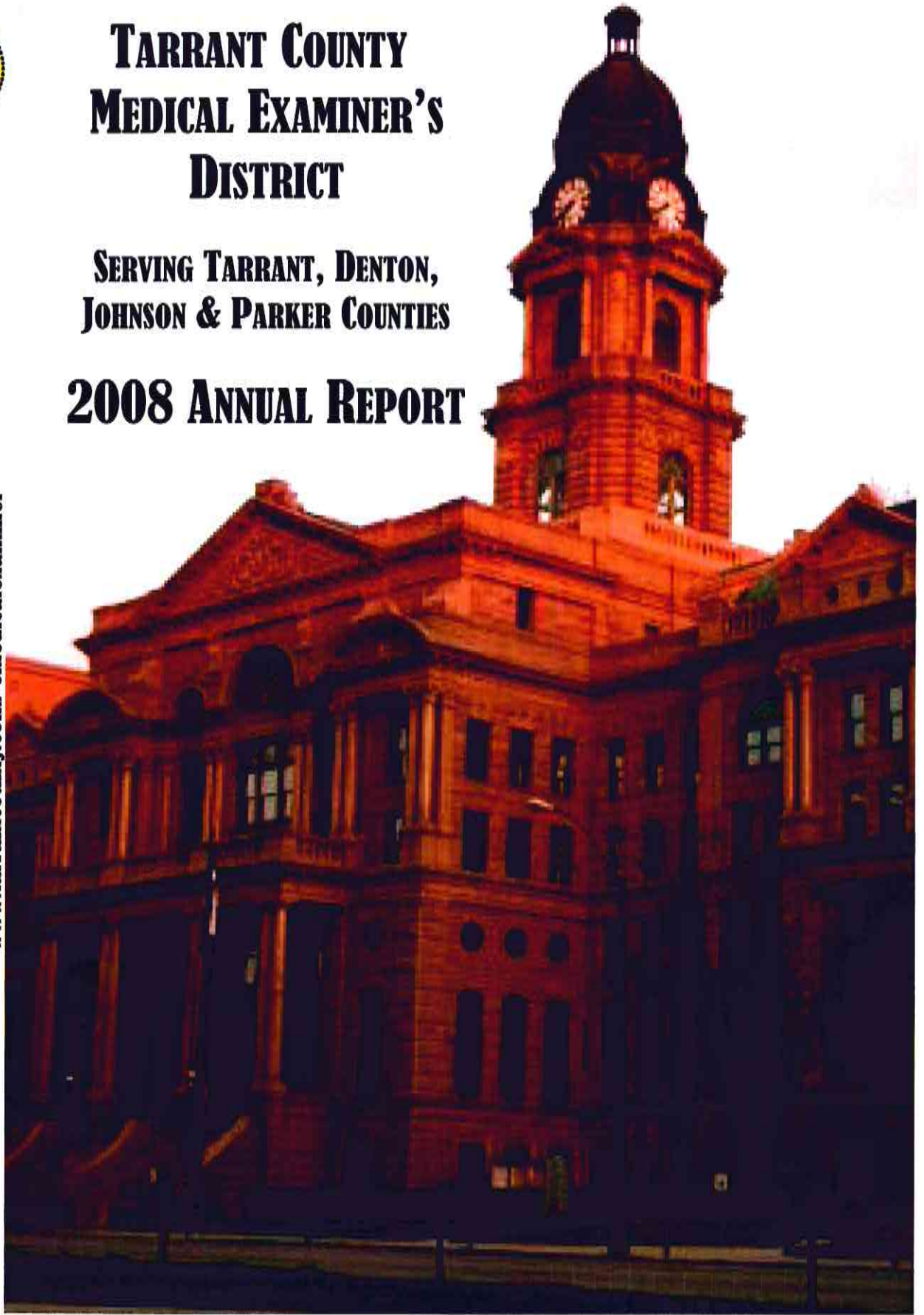
**TARRANT COUNTY MEDICAL EXAMINER AND FORENSIC SCIENCE LABORATORIES**

**200 FELIXS GWOZDZ PLACE FORT WORTH, TEXAS 76104 OFFICE: 817-920-5700 FAX: 817-920-5713  
[www.tarrantcounty.com/emedical examiner](http://www.tarrantcounty.com/emedical examiner)**

# **TARRANT COUNTY MEDICAL EXAMINER'S DISTRICT**

**SERVING TARRANT, DENTON,  
JOHNSON & PARKER COUNTIES**

## **2008 ANNUAL REPORT**



**FROM THE OFFICE OF THE  
TARRANT COUNTY CHIEF MEDICAL EXAMINER**



***Our Commitment and Philosophy . . .***

*Whenever we are called upon to assist, even if it is outside the defined jurisdiction, out of the scope of our duties, or otherwise removed from our responsibilities under the law, it is our general policy to help the individual reach the appropriate person, agency or organization who can assist.*

***Our Mission Statement . . .***

*The primary purpose of the Tarrant County Medical Examiner's Office is to assist the public and law enforcement agencies to determine the cause of death due to unnatural causes, medically unattended or death due to violence, using state of the art laboratory and forensic science facilities..*

*Sincerely,*

A handwritten signature in black ink, which appears to read "Nizam Peerwani". The signature is written in a cursive style and is positioned above the printed name.

**Dr. Nizam Peerwani  
Chief Medical Examiner**

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## PREFACE

The Tarrant County Medical Examiner's Office, established in 1969 to serve Tarrant County, today also serves Denton, Parker and Johnson Counties with a total district population exceeding 2.5 million. This area is experiencing a dramatic growth, and the Tarrant County Medical Examiner's Office is committed to continue providing the highest quality of service to the loved ones of the deceased and to the legal system.

Understanding the need to have knowledge in ever-growing subjects of anatomy, physiology, chemistry, and biology, and applying this knowledge to the science of determination of the cause of death has become a routine requirement for the staff at Tarrant County Medical Examiner's Office. A combination of staff with outstanding qualifications, sophisticated state-of-the-art equipment, strict compliance with statutes and regulations and accreditation by the National Association of Medical Examiners and the American Society of Crime Laboratory Directors Laboratory Accreditation Board make the Tarrant County Medical Examiner's Office one of the premiere medical examiner's offices in the nation. In addition to a staff of four highly trained board certified forensic pathologists, the office boasts a 24 hour investigative staff and a full complement of support services, including Human Identification, Toxicology, Criminalistics, and Forensic Photography laboratories.

The wealth of information available at the office, coupled with an interest to share and educate, prompts the staff to provide educational opportunities such as the Tuesday morning forensic rounds, the annual "Current Trends In Forensic Science" conference, a twelve month forensic pathology fellowship, monthly autopsy classes, a yearly two week training session with Physicians for Human Rights and training at the International Forensic Science Center to provide advanced forensic training to scholars from abroad. Members of the staff are often invited to provide services, give lectures, and provide consultation nationally and internationally.

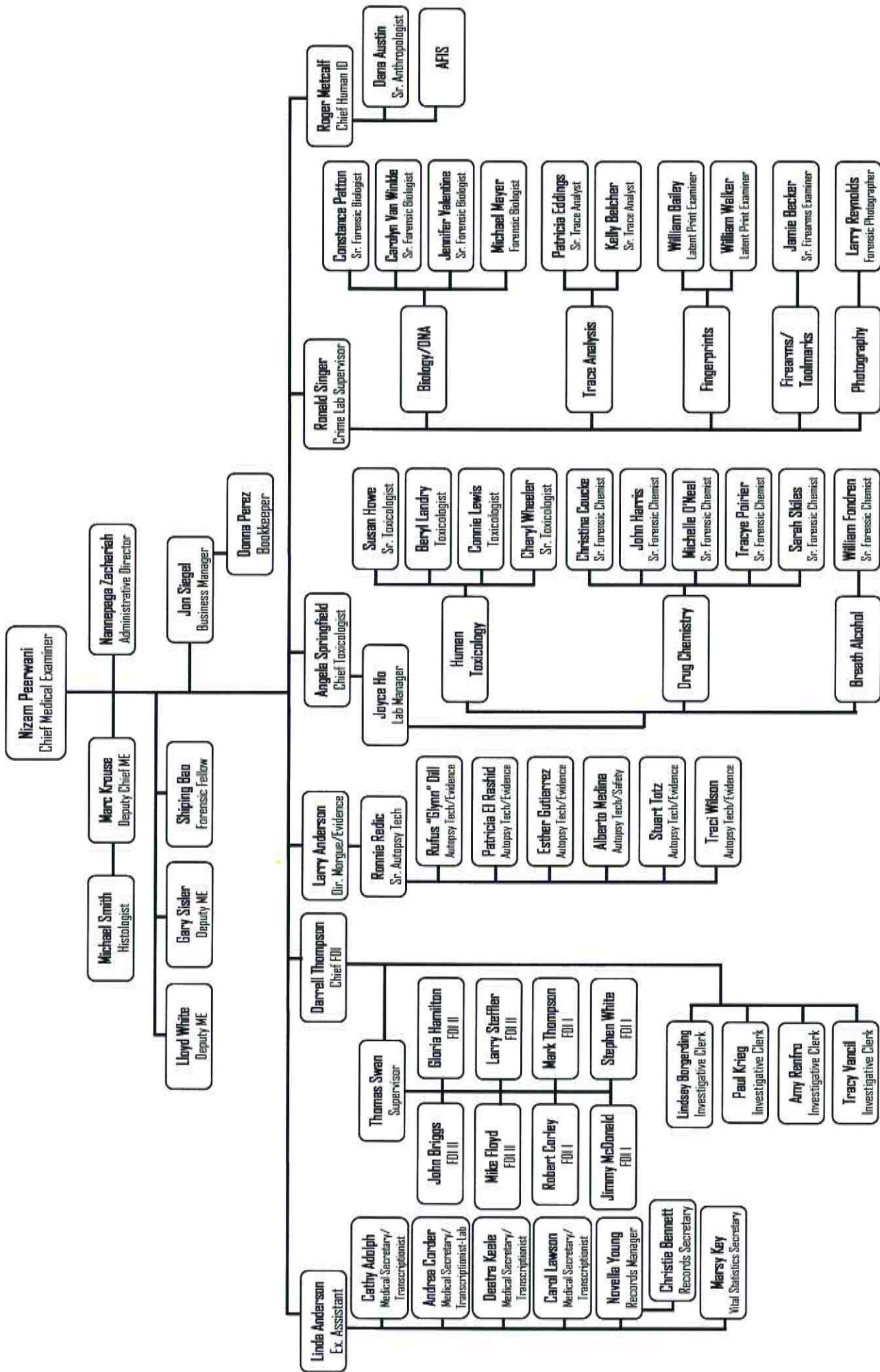
As you review this report, we hope we have imparted an appreciation for the depth of our commitment to excellent quality and service. Every day presents new challenges, which this Office strives to meet. We further strive to develop and implement new services and procedures to better serve you and the community.

## A BRIEF HISTORY OF THE MEDICAL EXAMINER'S OFFICE

- 1965 Tarrant County Commissioners Court establishes the Tarrant County Medical Examiner's Office. T.C. Terrell, M.D. is named Chief Medical Examiner.
- 1969 Feliks Gwozdz, M.D. is named Chief Medical Examiner
- 1979 After Dr. Gwozdz's unexpected death, Nizam Peerwani, M.D. is appointed Chief Medical Examiner
- 1980 First County-wide central morgue is established on the campus of Texas College of Osteopathic Medicine (Now University of North Texas Health Science Center)
- 1982 Toxicology and histology laboratories are added; shortly after, forensic dentistry is added to the office in order to assist in human identification
- 1986 Parker County officially joins the Medical Examiner's Office, creating the Tarrant County Medical Examiner's District
- 1989 Denton County joins the Medical Examiner's District
- The Tarrant County Medical Examiner's District moves into a new state of the art facility at 200 Myrtle Street on June 01, 1989. On the same day, the name of the street is changed to "Feliks Gwozdz Place" in honor of Dr. Gwozdz. In addition to modern up to date toxicology and histology laboratories, the new facility also includes a full service crime laboratory offering forensic biology, trace analysis, latent fingerprint and firearm/tool mark examinations.
- 1993 The Tarrant County Medical Examiner's District provides the death scene investigation and medical examiner services for McLennan County in the aftermath of the Branch Davidian incident at Mt. Carmel, Texas.
- 2003 The position of Forensic Anthropologist, formerly a part-time position within the office, becomes a full-time position, making the Tarrant County Medical Examiner's District the only Medical Examiner's Office in Texas with a full-time forensic anthropologist.
- 2007 The Human Identity Section is established, consisting of the Forensic Odontologist, Forensic Anthropologist and one Latent Fingerprint Examiner.
- 2008 Johnson County joins the Medical Examiner's District.



# TARRANT COUNTY MEDICAL EXAMINER'S OFFICE AND FORENSIC LABORATORIES







Cathy A. Adolph Linda F. Anderson Dana Austin, PhD Bill Bailey Shiping Bao, MD Jamie Becker Kelly Belcher, MS Christie Bennett John Briggs



Andrea Corder Robert L. Corley Christina C. Garza Glynn Dill Patricia Eddings, BS Pat ElRashid Michael Floyd, BS Mark Fondren, MS Esther Gutierrez



Gloria Hamilton, BS John E. Harris, MS Joyce Y. Ho, BS Sue Howe, PhD Deatra E. Keele Marsy D. Key Paul Krieg Marc Krouse, MD Beryl Landry



Carol Lawson Connie Lewis Jun Lumadilla Brittany L. Martin Michael Mayer Jimmy McDonald Alberto Medina Roger Metcalf, DDS Michelle O'Neal, BS



Connie Patton, BS Nizam Peerwani MD Donna M. Perez Tracye Poirier, BS Ronnie Redic Amy Renfro, BS Larry A. Reynolds Ronald Singer, MS Gary Sisler, DO



Sarah Skiles Mike Smith Angela Springfield Larry Steffler Tommy Swan Darrell Thompson Mark Thompson Stuart M. Totz Jennifer Valentine



Carolyn Van Winkle, MS Tracy Vancil Bill Walker Cheryl Wheeler Steve White Lloyd White, MD Traci Wilson Novella Young Nannepaga Zachariah



## **TARRANT COUNTY MEDICAL EXAMINER'S DISTRICT STAFF**

### **MEDICAL EXAMINERS**

Nizam Peerwani, M.D.	Chief Medical Examiner
Marc Krouse, M.D.	Deputy Chief Medical Examiner
Gary Sisler, D.O.	Deputy Medical Examiner
Robert Lloyd White, M.D. Ph.D.	Deputy Medical Examiner
Shiping Bao, M.D.	Forensic Fellow

### **ADMINISTRATION**

Nannepaga Zachariah, Ph.D.	Technical Administrative Director
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### **BOOKKEEPING**

Jon Siegel	Business Manager
Donna Perez	Bookkeeper

### **FORENSIC DEATH INVESTIGATION**

#### **TARRANT COUNTY**

Darrell Thompson, B.S.	Chief Forensic Death Investigator
Tommy Swan	Supervisory Investigator
John Briggs	Forensic Death Investigator II
Mike Floyd	Forensic Death Investigator II
Gloria Hamilton	Forensic Death Investigator II
Larry Steffler	Forensic Death Investigator II
Robert Corley	Forensic Death Investigator I
Jimmy McDonald	Forensic Death Investigator I
Mark Thompson	Forensic Death Investigator I
Stephen White	Forensic Death Investigator I
Lindsey Borgerding	Investigative Clerk
Paul Krieg	Investigative Clerk
Amy Renfro	Investigative Clerk
Tracy Vancil	Investigative Clerk

#### **DENTON COUNTY**

Troy Taylor	Chief Forensic Death Investigator
Regina Banks	Forensic Death Investigator
Sharon Baughman	Forensic Death Investigator
Janan Kline	Forensic Death Investigator
Dan Lintner	Forensic Death Investigator
Bill Mills	Forensic Death Investigator



## **JOHNSON COUNTY**

Tobey Hamrick	Chief Forensic Death Investigator
Michael Ball	Forensic Death Investigator
Ronnie Butsch	Forensic Death Investigator
Liesl Hoover	Forensic Death Investigator
Gary Morris	Forensic Death Investigator
Bryan Wallen	Forensic Death Investigator

## **PARKER COUNTY**

Kelly Green	Chief Forensic Death Investigator
Rusty Arnold	Forensic Death Investigator
Joe Harris	Forensic Death Investigator
Bill King	Forensic Death Investigator
Jim Nichols	Forensic Death Investigator
Gary Van Y	Forensic Death Investigator

## **FORENSIC CRIMINALISTICS LABORATORY**

Ronald Singer, M.S.	Crime Lab Supervisor
Constance Patton, B.S.	Senior Forensic Biologist
Carolyn Van Winkle, M.S.	Senior Forensic Biologist
Jennifer Valentine, M.S.	Senior Forensic Biologist
Michael Mayer, B.S.	Forensic Biologist
Patricia Eddings, B.S.	Trace Evidence Supervisor
Kelly Belcher, M.S.	Trace Analyst
Larry Reynolds	Forensic Photographer
Jamie Becker, B.S.	Sr. Criminalist-Firearms and Tool Marks
William Bailey	Latent Fingerprint/AFIS Specialist
William Walker	Latent Fingerprint/AFIS Specialist

## **FORENSIC CHEMISTRY AND TOXICOLOGY LABORATORY**

Angela Springfield, Ph.D., DABFT	Chief Forensic Toxicologist
Joyce Ho, B.S.	Toxicology Lab Manager
Susan Howe, DVM, Ph.D., DABFT	Senior Forensic Toxicologist
Cheryl Wheeler, B.S.	Senior Forensic Toxicologist
Beryl Landry, B.S.	Forensic Toxicologist
Connie Lewis, B.S.	Forensic Toxicologist
Christina Coucke, M.S.	Senior Forensic Chemist
Mark Fondren, M.S.	Senior Forensic Chemist
John Harris, M.S.	Senior Forensic Chemist
Michelle O'Neal, B.S.	Senior Forensic Chemist
Tracye Poirier, B.S.	Senior Forensic Chemist
Sarah Skiles, B.S.	Senior Forensic Chemist

## **HISTOLOGY**

Mike Smith, B.S.

Forensic Histotechnician

## **HUMAN IDENTIFICATION LABORATORY**

Roger Metcalf, D.D.S.

Chief of Identification Services

Dana Austin, Ph.D., DABFA

Senior Forensic Anthropologist

## **SECRETARIAL SERVICES**

Linda Anderson

Executive Assistant/PIO

Cathy Adolph

Medical Secretary/Transcriptionist

Andrea Corder

Medical Secretary/Transcriptionist-Lab

Deatra Keele

Medical Secretary/Transcriptionist

Carol Lawson

Medical Secretary/Transcriptionist

Novella Young

Records Manager

Christie Bennett

Records Secretary

Marsy Key

Vital Statistics Secretary

## **MORGUE/EVIDENCE SERVICES**

Larry Anderson

Director of Morgue/Evidence Services

Ronnie Redic

Senior Autopsy Technician

Glynn Dill

Autopsy Tech/Evidence

Patricia Elrashid

Autopsy Tech/Evidence

Esther Gutierrez

Autopsy Tech/Evidence

Alberto Medina

Autopsy Tech/Evidence

Stuart Totz

Autopsy Tech/Evidence

Traci Wilson

Autopsy Tech/Evidence

## **BUILDING ENGINEER**

Jun Lumadilla





## MEDICAL EXAMINER STAFF

### **NIZAM PEERWANI, M.D. - CHIEF MEDICAL EXAMINER**

Dr. Peerwani is a graduate of the American University of Beirut (MD 1976). He completed his residency in pathology at Baylor University Medical Center in Dallas, and is board certified in clinical, anatomic and forensic pathology. Currently he 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 an advocate of child safety and served on the Texas Child Fatality Review Committee as an expert in Forensic Medicine. Dr. Peerwani is also an advocate of Human Rights and serves as an expert consultant for Physicians for Human Rights with completed assignments in Rwanda, Bosnia, Indonesia, Cyprus, Afghanistan, and Israel for genocide and human rights violations under the auspices of the United Nations Tribunal.

### **MARC KROUSE, M.D. - DEPUTY CHIEF MEDICAL EXAMINER**

Dr. Krouse graduated from Texas A&M University with a B.S. degree (1974) in zoology, and from the University of Texas Southwestern Medical School with a M.D. degree (1977). Dr. Krouse completed his pathology residency at Baylor University Medical Center. Dr. Krouse has served as Deputy Medical Examiner (1978 - 1985) and is currently Deputy Chief Medical Examiner (1985 - present).

### **GARY SISLER, D.O. - DEPUTY MEDICAL EXAMINER**

Dr. Sisler graduated from the University of Toledo (1959) with a B.S. degree (1959) before completing his D.O. degree (1965) at the Kansas City College of Osteopathic Medicine. A board certified diplomat of the American Board of Forensic Examiners and the American Board of Forensic Medicine, Dr. Sisler is also certified in anatomic and clinical pathology by the American Board of Pathology. Dr. Sisler joined the medical examiner staff in 1989.

### **ROBERT LLOYD WHITE, M.D., PH.D. - DEPUTY MEDICAL EXAMINER**

Dr. White earned a B.S. degree (1965) from the University of Tulsa, Oklahoma and an M.D. (1972) as well as a Ph.D degree (1976) from the University of Oklahoma. He completed his residency in anatomic and clinical pathology at Baylor University Medical Center in 1976, and completed a fellowship in forensic pathology through the Southwestern Institute of Forensic Sciences, University of Texas, and Southwestern Medical Center in Dallas. Dr. White's medical specialty certification includes anatomic, clinical and forensic pathology. He worked with Affiliated Pathologists group in Denton, Texas between 1977 and 1989 as Director of autopsy services and also served as chief of medical staff, Lewisville Memorial Hospital, Lewisville, Texas. Between 1989 and 1992 he served as Mississippi state medical examiner and visiting clinical assistant professor of pathology, University of Mississippi Medical Center. He worked as Nueces county chief medical examiner, Corpus Christi, Texas between 1992 and 2002. Before joining the Tarrant County Medical Examiner's Office in February 2005 he was a consulting forensic pathologist between 2002 and 2005. In addition to his experience as a teacher and a researcher he also has a degree in Theology from the University of Dallas, Texas.



## **SHIPING BAO, M.D. – FORENSIC FELLOW**

Dr. Bao received his M.D. from Anhui Medical University of the People's Republic of China in 1985. He received a M.S. from Anhui Medical University in 1988. Following that he worked in radiation oncology at Anhui Medical University until 1992. Dr. Bao came to the United States in February 1992 and worked as a research associate at the Institute of Molecular Biophysics at Florida State University in Tallahassee until 1995. From 1995 until 2004 he was a research associate with Pacific Northwest National Laboratory in Richland, Washington. Dr. Bao received his Alabama medical license and worked for Baptist Health System in Birmingham, AL as an Anatomical and Clinical Pathologist from 2004 until coming to the Tarrant County Medical Examiner in July 2008.

### **ADMINISTRATION**

## **NANNEPAGA ZACHARIAH, PH.D. - TECHNICAL ADMINISTRATIVE DIRECTOR**

Dr. Zachariah joined the Medical Examiner's office in June 2000. He has Ph.D. degrees from India and from the University of Nebraska. After completing a Post Doctoral Fellowship at Cleveland Clinic he worked in the Pathology Departments at Baylor University Medical Center and Osteopathic Medical Center of Texas. Certified by the American Board of Bioanalysts as a High Complexity Laboratory Director, he has several publications and actively participates in Scientific and Professional organizations. His teaching affiliation includes UNT Health Science Center and Tarlton State University.

### **FORENSIC DEATH INVESTIGATION**

#### **TARRANT COUNTY:**

## **DARRELL THOMPSON, B.S. - CHIEF FORENSIC DEATH INVESTIGATOR**

Mr. Thompson began working as a medical investigator in 1980 following a distinguished career with the Fort Worth Police Department, where he served in the patrol, special enforcement, crime scene, and homicide divisions. Mr. Thompson earned a B.S. degree (1981) from East Texas State University. In addition, he has an Advanced Peace Officer certificate from TCLEOSE, and is a Registered Medicolegal Death Investigator with the American Board of Medicolegal Death Investigators.





**DENTON COUNTY:**



**TROY TAYLOR, B.S. -  
CHIEF FORENSIC DEATH INVESTIGATOR**

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 decompositional changes for intermediate crime scene classes as well as basic peace officer certification classes. He has attended medico-legal death investigation training and psychological profiling schools. Mr. Taylor was promoted to Chief Forensic Death Investigator of Denton County in 2007.

**PARKER COUNTY:**

**KELLY GREEN, B.A. -  
CHIEF FORENSIC DEATH INVESTIGATOR**

After earning his B.A. degree in 1988 from Texas Tech University, Kelly began his law enforcement career. In 1993, Mr. Green became the Forensic Death Investigator for the Parker County Office. In 2000 he became a registered Medicolegal Death Investigator with the American Board of Medicolegal Investigators, after which he achieved Board Certification through the ABMDI in 2005. Kelly also holds certifications as Texas Peace Officer and Texas Arson Investigator.



**JOHNSON COUNTY:**



**TOBEY HAMRICK -  
CHIEF FORENSIC DEATH INVESTIGATOR**

The Johnson County Medical Examiner's Office became a part of the Tarrant County Medical Examiner's District on July 1, 2008. Ms. Tobey Hamrick was named Chief Forensic Death Investigator for the office.



## **HUMAN IDENTIFICATION SERVICES**

### **ROGER METCALF, D.D.S. – CHIEF OF IDENTIFICATION SERVICES**

A lifelong resident of Tarrant County, Roger Metcalf graduated from Baylor University with a B.S. in biology in 1973 and from Baylor College of Dentistry with a D.D.S. in 1977 and completed a fellowship in forensic odontology at the university of Texas Health Science Center at San Antonio/Bexar County Medical Examiner's Office. He is currently enrolled in the law program at Texas Wesleyan University Law School. Dr. Metcalf volunteers his services pro bono with the Texas Innocence Project and is a Lieutenant Colonel in the Medical Brigade of the Texas State Guard.

Dr. Metcalf has practiced general dentistry in Arlington for 27 years and has served as a member of the mass disaster dental identification team since 1980. Dr. Metcalf was one of the dentists who participated in identifying the victims of the Delta 1141, Delta 191 and Mount Carmel incidents.

Dr. Metcalf was appointed Chief of Identification Services in 2004.

## **CRIMINALISTICS LABORATORY**

### **RONALD L. SINGER, M.S. - CRIME LABORATORY SUPERVISOR**

Ronald Singer received a Bachelor of Science Degree from Tulane University and a Master of Science Degree from Loyola University of New Orleans. A forensic scientist since 1972, he has served as President of the International Association of Forensic Sciences, is a Fellow and Past President of the American Academy of Forensic Sciences, a Distinguished Member and Past-President of the Association of Firearm and Toolmark Examiners, an Emeritus Member and Past Secretary of the American Society of Crime Laboratory Directors, and is a member of numerous other forensic associations and committees. He has been an invited speaker on forensic issues throughout the United States, Hungary, Bosnia, England, Portugal, Turkey, the Maldives and Sri Lanka. Mr. Singer is a recipient of the American Academy of Forensic Sciences Criminalistics Section Outstanding Service Award, the Association of Firearm and Toolmark Examiners Member of the Year Award and the Gold Medal of the Mediterranean Academy of Forensic Sciences.

## **FORENSIC TOXICOLOGY LABORATORY**

### **ANGELA C. SPRINGFIELD, PH.D., DABFT - CHIEF FORENSIC TOXICOLOGIST**

Dr. Springfield graduated from Vassar College with an A.B. (1964) degree, and from the University of Rhode Island with M.S. (1967) and Ph.D. (1971) degrees. Certified in forensic toxicology by the American Board of Forensic Toxicology, she joined the medical examiner's office in 1983. Additionally, Dr. Springfield is active in several professional societies and has approximately twenty articles published in peer-reviewed journals.



## SECRETARIAL SERVICES

### **LINDA F. ANDERSON - EXECUTIVE ASSISTANT/PIO**

Accepting employment as a medical secretary in 1994, Ms. Anderson is currently the Executive Assistant for the Chief Medical Examiner and she supervises the clerical department. She is responsible for scheduling pathologists for morgue duty, directs scheduling of physicians for court appearances and professional engagements, trains secretarial staff, interacts with families and the general public. In addition to these responsibilities she acts as the Public Information Officer for the office. Ms. Anderson's previous employment history includes office manager/procurement technician for Harris Methodist Tissue Services and Court Clerk with the City of Fort Worth Municipal Court.

## MORGUE/EVIDENCE SERVICES

### **LARRY G. ANDERSON - DIRECTOR OF MORGUE/EVIDENCE SERVICES**

Mr. Anderson is one of the senior most employees of this office and his service, starting from 1976, includes developing morgue and evidence procedures for this office. Mr. Anderson is also in charge of building maintenance and related quality control programs.



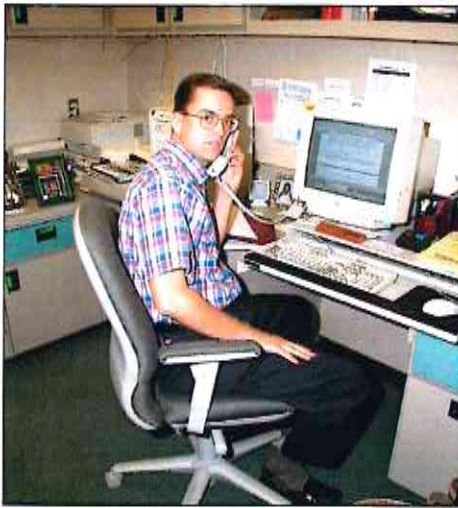
**TARRANT COUNTY MEDICAL EXAMINER'S DISTRICT  
GENERAL STATISTICAL SUMMARY  
2008**

	<u>Number</u>
<b>Deaths in jurisdiction (all deaths):</b>	<b>15,256</b>
Deaths reported to the office:	8,653
Deaths investigated (certified):	2,762
Scenes investigated:	1,135
Bodies brought to the facility:	2,081
 <b>Medical Procedures:</b>	 <b>2,081</b>
Inspections:	747 (36% of deaths certified)
Autopsies performed:	1,029 (49% of deaths certified)
Partial autopsies:	305 (15% of deaths certified)
 <b>Manner of Death:</b>	
Deaths certified as homicide:	130 (6% of deaths certified)
Deaths certified as suicide:	258 (12% of deaths certified)
Deaths certified as natural:	998 (48% of deaths certified)
Deaths certified as accidental:	644 (31% of deaths certified)
(Non-motor vehicle:	418)
(Motor vehicle:	226)
Deaths certified as undetermined:	51 (3% of deaths certified)
 <b>Unidentified Bodies:</b>	
Identified by office:	279
Identified by fingerprints:	169
Identified by odontology:	32
Identified by anthropology:	31
Identified by other means:	47



## FORENSIC DEATH INVESTIGATION

One of the primary purposes of the medical examiner's office is to conduct inquests or investigations into the cause and manner of deaths occurring within Tarrant, Denton, Johnson and Parker Counties. The Tarrant County Medical Examiner's District staffs an around-the-clock investigative division responsible for initiating a formal response to all reportable cases.



Investigators within the district made inquiries into more than 8653 deaths in 2008. Forensic investigators are trained in a multi-disciplinary capacity and possess unique education and abilities, including knowledge of criminal investigation techniques, relevant aspects of forensic medicine, crime scene processing skills, and maintenance of case integrity. Additionally, each investigator must be capable of conducting effective interviews, locating and notifying next-of-kin, and interacting with law enforcement personnel.

Once a jurisdictional death is reported, the investigator attends the scene or hospital where the 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 summation of all investigative analyses and leads. In addition, investigators coordinate with hospitals, physicians, law enforcement agencies, employers, families, and other pertinent sources to gather information that might be of value to the determination of the cause and manner of death.



### TARRANT COUNTY DEATH INVESTIGATIONS

Manner of Death	Cases Investigated	Fractional Demand
Natural	766	13
Accidental	492	8
Suicide	182	3
Homicide	118	2
Pending	0	0
Undetermined	38	>1
Non-Human Remains	13	>1
Reportable (Jurisdiction Waived)	4406	73
<b>Total</b>	<b>6015</b>	<b>100</b>

### DENTON COUNTY DEATH INVESTIGATIONS

Manner of Death	Cases Investigated	Fractional Demand
Natural	152	12
Accidental	77	6
Suicide	55	4
Homicide	11	>1
Pending	0	0
Undetermined	11	>1
Non-Human Remains	1	0
Reportable (Jurisdiction Waived)	1014	77
<b>Total</b>	<b>1321</b>	<b>100</b>

### PARKER COUNTY DEATH INVESTIGATIONS

Manner of Death	Cases Investigated	Fractional Demand
Natural	50	14
Accidental	37	11
Suicide	11	3
Homicide	4	1
Pending	0	0
Undetermined	2	1
Non-Human Remains	4	1
Reportable (Jurisdiction Waived)	244	69
<b>Total</b>	<b>352</b>	<b>100</b>

### JOHNSON COUNTY\* DEATH INVESTIGATIONS

Manner of Death	Cases Investigated	Fractional Demand
Natural	26	12
Accidental	26	12
Suicide	10	4
Homicide	1	>1
Pending	0	0
Undetermined	0	0
Non-Human Remains	0	0
Reportable (Jurisdiction Waived)	161	72
<b>Total</b>	<b>224</b>	<b>100</b>

\*Johnson County joined the TCME District on July 1st, 2008



## THE MORGUE



The main center of activity of any medical examiner's facility is the morgue area. Dedicated in 1989, the Tarrant County Medical Examiner's Office morgue area employs a design which centralizes all morgue activity, isolating it from the other activities of the building. There are 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 main morgue consists of four workstations, each of which is designed to be conducive to a dynamic work environment in which examinations can be carried out with maximum efficiency. In addition, the morgue area contains a separate major case morgue and a teaching morgue capable of seating 45 students.

Classroom instruction is an integral component of any medical education program. The Tarrant County Medical Examiner's Office regularly participates in the academic and practical training of students from the entire North Texas area by offering once a month autopsy classes.



The morgue is staffed by autopsy technicians (deiners) who assist the pathologists with forensic examinations. Each autopsy technician 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 radiological techniques as a tool. Designed to facilitate easy access to radiographic equipment without moving the body from the transport gurney, the radiology lab incorporates a C-arm fluoroscope, a fixed flat plate device, and articulated dental radiography equipment.

## EVIDENCE HANDLING

In order to preserve evidentiary integrity, each piece of evidence collected by or submitted to the medical examiner's office for processing must be coupled with a detailed chain-of-custody log. To ensure the chain-of-custody is maintained correctly, and that all evidence is handled, cared for, and stored properly, forensic technicians with expertise in evidentiary preservation are utilized.



## FORENSIC TOXICOLOGY AND CHEMISTRY LABORATORY

### FORENSIC TOXICOLOGY



Forensic toxicological services were established at the medical examiner's office in 1983. Subsequently, the toxicology laboratory has expanded to include mass 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 in specimens. Additionally, the forensic toxicology laboratory participates regularly in established analytical proficiency testing and quality assurance programs.

### INTOXILYZER PROGRAM

An intoxilyzer instrument provides an objective, scientific means of testing someone who is suspected by police to have been driving under the influence of alcohol by measuring a sample of the suspect's breath for determinable levels of alcohol concentration. Grant funds supplied by the Texas Department of Transportation were used to establish the ME office's intoxilyzer program. Under the program, forensic chemists establish intoxilyzer test sites, calibrate and maintain equipment, and train intoxilyzer operators, which benefits local police agencies.



### FORENSIC CHEMISTRY



Forensic chemists analyze drugs submitted by other agencies. Drug types received commonly range from clandestine chemical substances to 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 medical examiner's district are faced with the challenge of identifying drugs found subsequent to an arrest or search warrant execution.



## 2008 TOXICOLOGY CASES RECEIVED AND PROCESSED

	Tarrant	Denton	Parker	Other ME Cases	Other Cases	Totals
January	61	15	7	31	127	<b>241</b>
February	63	9	5	45	74	<b>196</b>
March	61	17	1	37	59	<b>175</b>
April	79	10	2	39	85	<b>215</b>
May	65	12	6	52	71	<b>206</b>
June	65	10	6	33	78	<b>192</b>
July	73	24	1	36	107	<b>241</b>
August	78	14	8	25	54	<b>179</b>
September	83	17	1	36	70	<b>207</b>
October	68	25	6	49	84	<b>232</b>
November	59	19	6	51	70	<b>205</b>
December	58	18	7	38	90	<b>211</b>
<b>Totals</b>	<b>813</b>	<b>190</b>	<b>56</b>	<b>472</b>	<b>969</b>	<b>2500</b>

## TOXICOLOGY SERVICES BY SAMPLE

	ABN	Alcohol	BZD	Cannabis THC	Carbon Monoxide	Cocaine	Opiate	Amphet-amine	Other	Drug & Quant.	Alcohol Affidavits	Totals
January	451	537	213	118	2	213	213	213	98	758	80	<b>2896</b>
February	475	500	162	101	4	162	162	162	0	633	55	<b>2416</b>
March	533	420	165	114	7	165	165	165	32	555	36	<b>2357</b>
April	341	453	185	114	8	185	185	185	113	710	45	<b>2524</b>
May	591	481	174	98	12	174	174	174	30	601	33	<b>2542</b>
June	479	508	151	85	3	151	151	151	41	450	32	<b>2202</b>
July	456	405	193	96	7	193	193	193	15	557	53	<b>2361</b>
August	412	248	136	117	3	136	136	136	17	532	46	<b>1919</b>
September	584	428	196	106	11	196	196	196	27	882	41	<b>2863</b>
October	533	508	206	122	4	206	206	206	47	676	31	<b>2745</b>
November	506	353	152	91	9	152	152	152	79	591	39	<b>2276</b>
December	493	439	176	93	14	176	176	176	26	630	38	<b>2437</b>
<b>Totals</b>	<b>5854</b>	<b>5280</b>	<b>2109</b>	<b>1255</b>	<b>84</b>	<b>2109</b>	<b>2109</b>	<b>2109</b>	<b>525</b>	<b>7575</b>	<b>529</b>	<b>29538</b>

## 2008 CHEMISTRY

	<b>Cases Received</b>	<b>Samples Received</b>
<b>January</b>	<b>219</b>	<b>485</b>
<b>February</b>	<b>191</b>	<b>433</b>
<b>March</b>	<b>185</b>	<b>378</b>
<b>April</b>	<b>248</b>	<b>527</b>
<b>May</b>	<b>208</b>	<b>543</b>
<b>June</b>	<b>464</b>	<b>986</b>
<b>July</b>	<b>295</b>	<b>564</b>
<b>August</b>	<b>225</b>	<b>479</b>
<b>September</b>	<b>226</b>	<b>726</b>
<b>October</b>	<b>230</b>	<b>590</b>
<b>November</b>	<b>170</b>	<b>451</b>
<b>December</b>	<b>207</b>	<b>500</b>
<b>Totals</b>	<b>2868</b>	<b>6662</b>

## 2008 BREATH ALCOHOL TESTING PROGRAM

<b>Breath Tests</b>	<b>3380</b>
<b>Under 21</b>	<b>372</b>
<b>Affidavits</b>	<b>818</b>
<b>Testing Sites Supervised</b>	<b>19</b>
<b>Court Appearances (Days)</b>	<b>45</b>
<b>ALR Hearings</b>	<b>415</b>



## CRIMINALISTICS LABORATORIES

*Since 1989, the Tarrant County Medical Examiner's District has operated a full-service crime laboratory, serving the needs of the medical examiner's office, district attorney's offices, and law enforcement agencies 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. Specialized sections of the crime laboratory identify, analyze, and report on various forms of evidence such as DNA, blood spatter, trace materials, chemical compounds, firearms, tool marks and latent fingerprints.*

### FORENSIC BIOLOGY

DNA analysis provides the ability to restrict potential populations of persons to which a biological sample might belong to a much smaller subset of suspects. Such a determination is useful in identifying the source and, subsequently, connecting that source to a particular death or crime scene. In addition, the DNA laboratory is a designated CODIS (Combined DNA Index System) laboratory. CODIS is the FBI's DNA data base that ultimately links all 50 states and 18 countries to provide a means of comparing forensic case work profiles. The data base search may result in linking unsolved cases to a single perpetrator and can provide significant investigative leads.



- **In 2008, the Forensic Biology laboratory provided 8763 services on 828 cases.**

### TRACE EVIDENCE



Trace evidence is that material which, because of its size or weight, can be easily transferred from one individual or object to another. Gunshot residue, hair, glass, paint, and fibers are among the more common materials collected and submitted for examination. Trace analysis utilizes advanced technology and instrumentation such as the scanning electron microscope to obtain chemical profiles of materials in an attempt to relate materials to each other or to a common source. The

trace analyst, as other criminalists, must be knowledgeable of relevant and scientifically sound analytical, investigative methodologies.

- **In 2008, the Trace laboratory provided 4366 services on 138 cases.**

## FIREARMS AND TOOL MARKS

Examination and analyses of firearms, projectiles, ballistics, and markings imparted by any form of tool, fall within the purview of the firearms and tool marks laboratory. Firearms submitted are examined for inherent characteristics, unique identifiers, and safety-related factors, and can be test fired to obtain reference material that can subsequently be compared to submitted evidence. Range-of-fire determinations can be carried out on a 40-foot indoor range.



- In 2008, the Firearms laboratory provided 802 services on 68 cases.

## LATENT FINGERPRINTS



Latent fingerprint examination is a fundamental tool of the medical examiner's office, with latent prints being utilized as a scientific form of identification on unidentified bodies that come into the medical examiner's office. Fingerprints can also be retrieved from submitted evidence and used to assist in identifying a criminal suspect. Applying the newest technology, the latent print examiner achieves remarkable results in lifting prints from various substrates.

- In 2008, the Latent Fingerprint laboratory provided 2192 services on 283 cases.

## FORENSIC PHOTOGRAPHY

A fully equipped forensic photography laboratory was added to the crime laboratory in 1994. By 2005, the laboratory had replaced all film processing with digital photography. In addition to more traditional photography, the lab is capable of making photographs utilizing ultraviolet and infrared techniques. Image enhancement can also be performed. Pictures, enlargements, and other services are provided to the medical examiner, to the courts, and to individuals for educational or research-based presentations.



- In 2008, the Forensic Photography laboratory provided 63,279 services on 1791 cases.



## ALLIED SERVICES

### FORENSIC HISTOLOGY

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



- **In 2008, the forensic histology section provided 34,591 services on 540 cases submitted.**

### SECRETARIAL SERVICES

Secretaries for the medical examiner's office provide a diverse complement of administrative support services for the daily operation of business. In addition to performing the usual secretarial tasks, each medical secretary assists in the management of records, complex transcription services, and interaction with bereaved families, law enforcement agencies, hospitals and funeral homes. Included in their responsibilities is the issuance of death certificates, cremation letters and amended death certificates as well as scheduling pathologists for court appearances.



## HUMAN IDENTIFICATION LABORATORY

Identification of unidentified remains is a primary function of the Tarrant County Medical Examiner's Office. In order to more efficiently accomplish this task, the office has created the Human Identification Laboratory. Headed by a full time forensic odontologist, the laboratory staff also includes a full time forensic anthropologist, and utilizes the talents of the fingerprint examiners assigned to the crime laboratory. Unidentified remains are systematically examined using fingerprints, dental records, anthropological studies and DNA technology and making use of local, state and national data bases in an effort to provide identity and closure to the deceased and their families.



### FORENSIC ODONTOLOGY

Forensic dentists deal with a range of medicolegal problems. Identification of the human remains of natural disasters, terrorist activities, and missing and unknown persons is a central activity. The postmortem dental examination of human remains usually involves charting dental and cranial features, radiographic (x-ray) documentation of these features, and forensic report writing regarding these findings. Dental identification plays a particularly important role in the identification of victims of catastrophic events where there are massive numbers of casualties such as airplane crashes (Pan Am flight 103 and American Airlines flight 587), fires, floods, earthquakes, or terrorist attacks (Oklahoma City Federal Building and the World Trade Center).



### FORENSIC ANTHROPOLOGY

Bones comprise the structural framework of the human body. Due to their properties, bones decompose more slowly than many other tissues and organs; thus, they are often capable of providing clues that assist examiners in determining the cause and manner of death. Skeletal remains can provide information such as the race, stature, weight, age, and gender of the decedent. Evidence of trauma or natural disease may also be identified. X-ray comparisons can help establish scientifically the identity of a body. Samples of DNA can also be obtained from bone; thus, in cases where decomposition is advanced significantly, DNA analysis can still be of value. Tarrant County has the only comprehensive forensic anthropology laboratory attached to a medical examiner's office in Texas.





## CHILD FATALITY REVIEW TEAM

Child deaths attributable to illness, birth defect, delivery difficulty, neoplastic disease, and other natural causes account for approximately two out of three child fatalities locally. Although these deaths can be devastating, the larger community is impacted perhaps more by deaths occurring unnaturally. The greatest risk of death from abuse or neglect occurs among the youngest children who, because of their age, have an absolute dependence on their caretakers.

Although there are more than 4,000 child deaths annually in Texas, no single agency tracks all aspects of every death reported. Of particular interest are those deaths that are preventable. In 1995, the Texas Legislature amended Chapter 264 of the Family Code to include language outlining the establishment and continuance of a state child fatality review team committee, local child fatality review teams, and formation of a statewide analytical evaluation of all collected and reported child death information. The ultimate goal of the project is to identify trends and reduce the number of preventable childhood deaths. There are approximately 50 representatives appointed to the Tarrant County CFRT from the following agencies:

- ◆ Tarrant, Denton, and Parker County District Attorney Offices
- ◆ Local Law Enforcement
- ◆ Texas Department of Protective and Regulatory Services (CPS)
- ◆ Cook Children's Medical Center
- ◆ Rural-Metro EMS
- ◆ North Texas SIDS Alliance
- ◆ Alliance for Children - Tarrant County
- ◆ Tarrant County College (Child Abuse Training Project)
- ◆ Fort Worth Bureau of Vital Statistics
- ◆ Tarrant County, Fort Worth, and Denton Public Health Departments
- ◆ University of North Texas Health Science Center - Public Health program
- ◆ Medical Specialists (e.g., pediatric neurosurgeon, pathologist, and epidemiologist)
- ◆ Emergency Physicians Advisory Board
- ◆ Crimes against Children Task Forces
- ◆ Shaken Baby Alliance

**Of the 96 child deaths reviewed by the CFRT in 2008 39 (40.6%) were due to natural causes while the remaining cases were attributable to unnatural means. Unnatural deaths reviewed are comprised of 13 homicides (13.5 %), 21 accidents (21.9%), 7 suicides (7.3%), and 16 undetermined cases (16.7%).**

## **SPECIAL SERVICES**

### **FORENSIC EDUCATION PROGRAM**

Opportunities for education in the forensic sciences are extended to local law enforcement, medical, and higher education agencies through the medical examiner's office. Over 600 persons are provided annually the unique educational experience of witnessing a forensic autopsy. Local agencies served through this educational program include the Fort Worth and Arlington Police and Fire Academies, District Attorney Offices in Hood and Denton County, Weatherford College Nursing School, and both the pre-med and biology honor sciences at Texas Wesleyan University and other colleges.

### **TUESDAY MORNING FORENSIC ROUNDS**

Every Tuesday at 8:00am in the Forensic Rounds, a large variety of topics are presented by either the ME staff or an invited speaker for about forty five minutes leading to a profitable discussion. The audience includes law enforcement personnel, attorneys, medical personnel, and medical students. The newly renovated conference room on the third floor annex building provides a convenient facility for the medical examiner's conferences for smaller groups.

### **ANNUAL CURRENT TRENDS CONFERENCE**

The conference is organized by the Tarrant County Medical Examiner's Office in conjunction with various universities and colleges and is usually held in December of each year. The symposium is designed to meet the educational needs of Law Enforcement Agents, District and Defense Attorneys, Justices of Peace, Medical Professionals and anyone in the Medicolegal Investigation Systems. The goal of the seminar is to provide attorneys, physicians and law enforcement agencies an understanding of the operation of the Medical Examiner's Office including formulation, investigation and interpretation of death scenes, autopsies and laboratory results. This is accompanied by using appropriate presentations and student participation.

### **INTERNATIONAL FORENSIC SCIENCE CENTER**

The International Forensic Science Center is a part of the Tarrant County Medical Examiner's Office and was started during 2006. The purpose of this is to provide education available at the medical examiner's office to forensic scholars and students from abroad. The first conference was held during February 2006 when eight students attended the conference for two weeks. The medical examiner's staff arranged lectures and practical sessions. A working relationship was established between Texas Wesleyan University and the Tarrant County Medical Examiner's Office for education at the International level. Texas Wesleyan University was gracious enough to provide boarding and lodging to these eight students.



## FORENSIC PATHOLOGY FELLOWSHIP

The Forensic Pathology Fellowship was started in 2004 and at the current time is fully accredited by the ACGME. The fellow works with the medical examiners and scientific staff and receives twelve full months of exposure at the medical examiner's office. When the program is completed, the fellow will graduate and become eligible for a career as a forensic pathologist.

## STUDENT VOLUNTEERS

Any student who wants to get exposure to the medical examiner's activities can apply for a volunteer position. The time spent in the Tarrant County Medical Examiner's office is flexible, but the student gets a good exposure and will be in a position to decide their future career. Some of the students also get educational credits.

# *Coming in 2009*

## TARRANT COUNTY MEDICAL EXAMINER PROPOSED EXPANSION PROJECT

A bond election was held in 2006 that approved funds to expand the current Medical Examiner facilities. Substantial work was accomplished in the planning phase of this project in 2008. Groundbreaking for the expansion is expected to occur in the fall of 2009.

