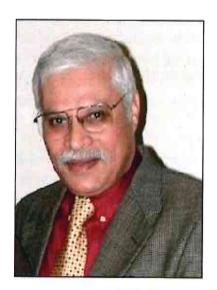


FROM THE OFFICE OF THE TARRANT COUNTY CHIEF MEDICAL EXAMINER



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,

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, Johnson and Parker counties with a total district population exceeding 2.6 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 the Tarrant County Medical Examiner's Office. A combination of staff with outstanding qualifications, sophisticated state-of-the-art equipment. 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 premier medical examiner offices in the nation. In addition to a staff of five 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, 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)
- 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.

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

 Dr. Shiping Bao joined the staff in July to serve a one year fellowship.
- Dr. Shiping Bao joined the medical examiner staff full time.
 Dr. Gary Sisler transitioned to part-time status.
 Dr. Lucile Tennant joined the staff in July to serve a one year fellowship.

2009 Summary

Accreditations:

The office underwent its NAME (National Association of Medical Examiners) inspection and received accreditation for another five years.

The Crime Lab underwent ASCLD/LAB inspection and received accreditation for an additional five years.

Personnel

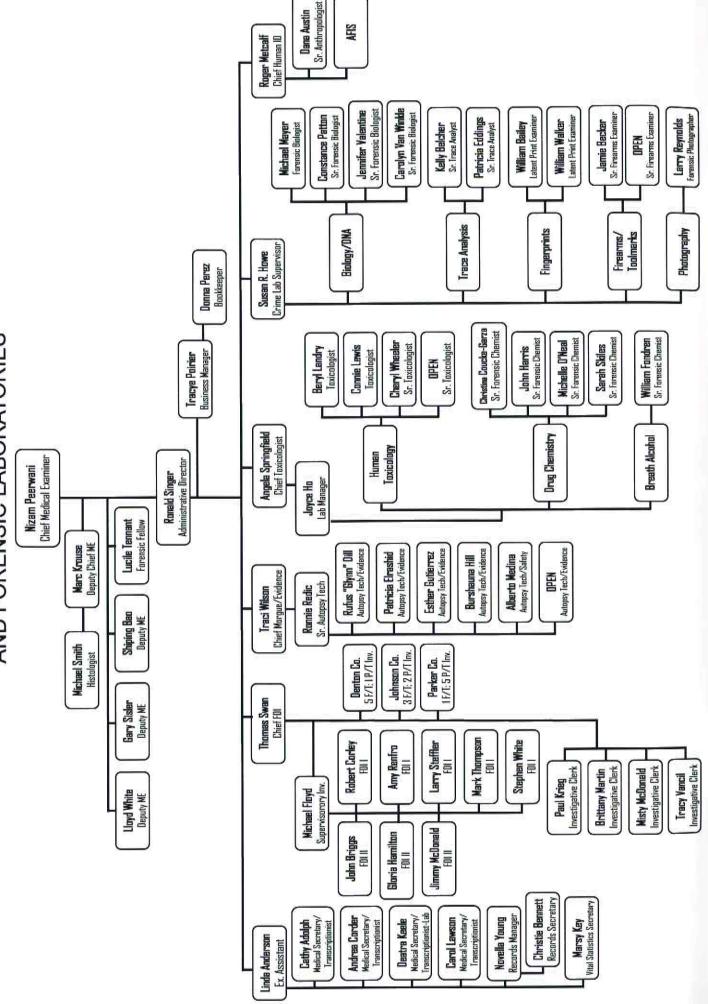
Some key personnel changes occurred in 2009. Dr. Nannepaga Zachariah, Technical and Administrative Director of TCME for 9 years, passed away in February 2009 after an extended illness. Larry Anderson, Chief of Morgue/Evidence Services, and Darrell Thompson, Chief Forensic Death Investigator, both retired after lengthy careers in April of 2009. Dr. Shiping Bao, our 2008 Forensic Fellow, joined the staff full-time, while Dr. Gary Sisler transitioned to part-time status. Dr. Lucile Tennant joined us in July to serve a one year fellowship. Ronald Singer was promoted from Crime Lab Director to Technical and Administrative Director. Susan Howe was promoted from Senior Toxicologist to Crime Lab Director. Thomas Swan was promoted from Supervisory Investigator to Chief Forensic Death Investigator. Traci Wilson was promoted from Autopsy Technician to Chief of Morgue/Evidence Services. Tracye Poirier moved into the position of Business Manager. Mike Pollard took over as Chief Forensic Death Investigator in Johnson County.

Other Accomplishments:

A new Safety Committee was appointed in February of 2009 and given a mandate to review existing written policies and procedures and recommend and adopt amendments to meet the changing and emerging needs of both NAME and ASCLD/LAB. The Safety Committee created and distributed Safety Program manuals to all employees, as well as posting on the TCME internal website, conducted comprehensive safety training for all TCME employees, as well as investigative staff in Denton, Johnson and Parker counties. Training was also videotaped, and the videos are now used for training all new staff, volunteers and interns. All TCME employees have completed CPR/AED training, and have completed a Hepatitis B vaccination program and TB screening. Our hazardous waste containment and disposal program was expanded in compliance with EPA and TCEQ regulations. A safety audit was conducted at the end of the year with very good results.



TARRANT COUNTY MEDICAL EXAMINER'S OFFICE AND FORENSIC LABORATORIES





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TARRANT COUNTY MEDICAL EXAMINER'S DISTRICT STAFF

MEDICAL EXAMINERS

Nizam Peerwani, M.D.

Marc Krouse, M.D.

Shiping Bao, M.D. Gary Sisler, D.O.

Robert Lloyd White, M.D. Ph.D.

Lucile Tennant, M.D.

Chief Medical Examiner

Deputy Chief Medical Examiner

Deputy Medical Examiner

Deputy Medical Examiner

Deputy Medical Examiner

Forensic Fellow

ADMINISTRATION

Ronald L. Singer, M.S.

Technical Administrative Director

BUSINESS OFFICE

Tracye Poirier, B.S.

Donna Perez

Business Manager

Bookkeeper

FORENSIC DEATH INVESTIGATION

TARRANT COUNTY

Tommy Swan

Mike Floyd, B.S.

John Briggs

Gloria Hamilton, B.S.

Jimmy McDonald

Robert Corley

Amy Renfro, B.S. Larry Steffler

Mark Thompson

Stephen White

Paul Krieg

Brittany Martin

Misty Rutherford

Tracy Vancil

Chief Forensic Death Investigator

Supervisory Investigator

Forensic Death Investigator II

Forensic Death Investigator II

Forensic Death Investigator II

Totelisic Death Investigator 1

Forensic Death Investigator I

Investigative Clerk

Investigative Clerk

Investigative Clerk

Investigative Clerk

Investigative Clerk

DENTON COUNTY

Troy Taylor, B.S.

Regina Banks

Sharon Baughman

Janan Kline

Dan Lintner

Bill Mills

Chief Forensic Death Investigator

JOHNSON COUNTY

Mike Pollard, B.A.S.. Steve Clinkscales Kevin Coffey Liesl Hoover

Chief Forensic Death Investigator Forensic Death Investigator Forensic Death Investigator Forensic Death Investigator Forensic Death Investigator

PARKER COUNTY

Kelly Green, B.A. Rusty Arnold Bill King Jim Nichols Gary Van Y

Gary Morris

Chief Forensic Death Investigator Forensic Death Investigator Forensic Death Investigator Forensic Death Investigator Forensic Death Investigator

FORENSIC CHEMISTRY AND TOXICOLOGY LABORATORY

Angela Springfield, Ph.D., DABFT Joyce Ho, B.S.
Cheryl Wheeler, B.S.
Beryl Landry, B.S.
Connie Lewis, B.S.
Christina Coucke-Garza, M.S.
Mark Fondren, M.S.
John Harris, M.S.
Michelle O'Neal, B.S.
Sarah Skiles, B.S.

Toxicology Lab Manager
Senior Forensic Toxicologist
Forensic Toxicologist
Forensic Toxicologist
Senior Forensic Chemist

Chief Forensic Toxicologist

FORENSIC CRIMINALISTICS LABORATORY

Susan Howe, D.V.M., Ph.D., DABFT Michael Mayer, B.S.
Constance Patton, B.S.
Jennifer Valentine, M.S.
Carolyn Van Winkle, M.S.
Kelly Belcher, M.S
Patricia Eddings, B.S..
William Bailey
William Walker
Jamie Becker, B.S.

Crime Lab Supervisor
Forensic Biologist
Senior Forensic Biologist
Senior Forensic Biologist
Senior Forensic Biologist
Senior Trace Analyst
Senior Trace Analyst
Latent Fingerprint/AFIS Specialist

Latent Fingerprint/AFIS Specialist
Latent Fingerprint/AFIS Specialist
Sr. Criminalist Finance and Tool Ma

Sr. Criminalist-Firearms and Tool Marks

Forensic Photographer

HISTOLOGY

Mike Smith, B.S.

Larry Reynolds

Forensic Histotechnician

HUMAN IDENTIFICATION LABORATORY

Roger Metcalf, D.D.S. Dana Austin, Ph.D., DABFA Chief of Identification Services Senior Forensic Anthropologist

MORGUE/EVIDENCE SERVICES

Traci Wilson

Ronnie Redic

Glynn Dill

Patricia Elrashid

Esther Gutierrez

Burshauna Hill

Alberto Medina

Director of Morgue/Evidence Services

Senior Autopsy Technician

Autopsy Tech/Evidence

Autopsy Tech/Evidence

Autopsy Tech/Evidence

Autopsy Tech/Evidence

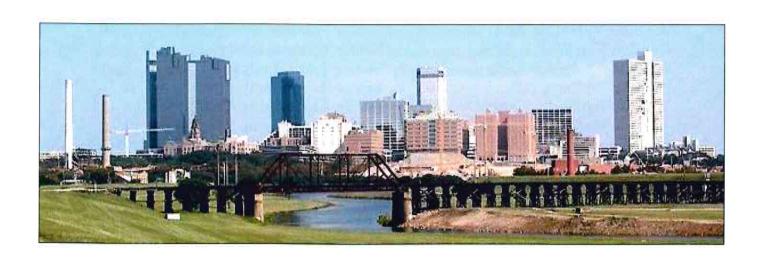
Autopsy Tech/Evidence

SECRETARIAL SERVICES

Linda Anderson Executive Assistant/PIO Cathy Adolph Medical Secretary/Transcriptionist Andrea Corder Medical Secretary/Transcriptionist Deatra Keele Medical Secretary/Transcriptionist-Lab Carol Lawson Medical Secretary/Transcriptionist Novella Young Records Manager Christie Bennett Records Secretary Marsy Key Vital Statistics Secretary

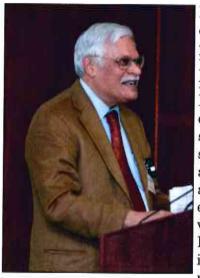
BUILDING SUPERINTENDENT

Jun Lumadilla



MEDICAL EXAMINER STAFF

NIZAM PEERWANI, M.D. - CHIEF MEDICAL EXAMINER



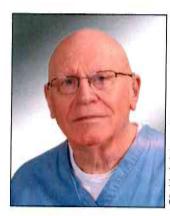
Dr. Peerwani is a graduate of the American University of Beirut (M.D. in 1976). He completed his residency in pathology at Baylor University Medical Center in Dallas, and is board certified in anatomic, clinical and forensic pathology. Currently he is the Chief Medical Examiner for Tarrant, Denton, Johnson 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 investigating 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 his M.D. (1977). He completed his pathology residency at Baylor University Medical Center and is board certified in anatomic, clinical and forensic pathology. Dr. Krouse began his career here, serving as a Deputy Medical Examiner (1978 - 1985) and is currently serving as the Deputy Chief Medical Examiner (1985 - present).



GARY SISLER, D.O. - DEPUTY MEDICAL EXAMINER



Dr. Sisler graduated from the University of Toledo 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. After serving 29 years and achieving the rank of Colonel, United States Army Medical Corps, Dr. Sisler joined the medical examiner staff in 1989 as a Deputy Medical Examiner. In July of 2009 Dr. Sisler transitioned to part time status.

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. - DEPUTY MEDICAL EXAMINER

Dr. Bao received his M.D. from Anhui Medical University of the People's Republic of China in 1985. He received an 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. After completing TCME's one year fellowship, Dr. Bao accepted a full time position with the Tarrant County office. He has received board certification in anatomic, clinical and forensic pathology.

LUCILE TENNANT, J.D., M.D. - FORENSIC FELLOW



Dr. Tennant received her J.D. from the University of Texas in 1983, and after working a few years in the legal field decided to pursue a career in medicine. She received her M.D. from University of Texas Southwestern Medical School in 1991. Prior to accepting the fellowship position at the Tarrant County Medical Examiner's Office for the 2009-2010 year, Dr. Tennant worked on pathology and/or teaching staffs at University of Texas Medical School Houston; Children's Hospital Boston Harvard Medical School; Children's Hospital Wisconsin; and Austin Pathology Associates and in medical/legal consulting. She is licensed to practice medicine in New York and Texas, and is board certified in anatomic, clinical and pediatric pathology.

ADMINISTRATION

RONALD SINGER, M.S. - TECHNICAL ADMINISTRATIVE DIRECTOR

Ronald Singer received a B.S. degree from Tulane University and an M.S. 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 U.S., 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, the Gold Medal of the Mediterranean Academy of Forensic Sciences and the Distinguished Fellow Award from the American Academy of Forensic Sciences.

BUSINESS OFFICE

TRACYE POIRIER, B.S. (M.B.A. 2010) - BUSINESS MANAGER



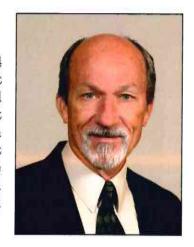
Tracye Poirier received her B.S. degree in Chemistry from the University of Texas at Arlington. She came to work here in 2000 as a Senior Forensic Toxicologist. She also served as a Senior Forensic Chemist before assuming her current role as the Business Manager. Her background in the sciences provides her with unique insight into managing a Medical Examiner office. Ms. Poirier is working on her M.B.A. degree with an emphasis in Strategic Leadership, which she will receive in April 2010 from the University of Dallas. Ms. Poirier is a member of the American Academy of Forensic Sciences and the Southwestern Association of Toxicologists.

FORENSIC DEATH INVESTIGATION

TARRANT COUNTY:

TOMMY SWAN - CHIEF FORENSIC DEATH INVESTIGATOR

Tommy Swan began working as a medical investigator in 1994 after retiring from a 28 year distinguished career as a Fort Worth Police Officer. Beginning his career in the Patrol Division, Tommy advanced to the level of Homicide Lieutenant where he served 10 years. During this time he was also in charge of the Crime Scene Search Unit and Sexual Assault Unit. Tommy earned an Associate Degree in Police Science from Tarrant County College, 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.

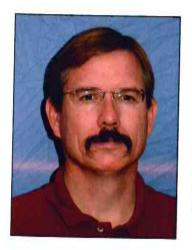
JOHNSON COUNTY:

MIKE POLLARD, B.A.S. - CHIEF FORENSIC DEATH INVESTIGATOR

Mike began working for the Johnson County Medical Examiner's Office in 2009 after retiring from a 20 year career in Law Enforcement with the Burleson Police Department. During his tenure there he served in several positions, and rose to the position of Operations Division Captain, where he served his last seven years. While serving in this position Mike was responsible for Patrol, Traffic, Jail, SWAT and Fleet Operations. Mike has earned a Bachelor's degree in Business Administration and an Associate's Degree in Criminal Justice.



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, and achieved Board Certification through the ABMDI in 2005. Kelly also holds certifications as Texas Peace Officer and Texas Arson Investigator.

FORENSIC CHEMISTRY AND 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. She joined the medical examiner's office in 1983. Certified in Forensic Toxicology by the American Board of Forensic Toxicology, Dr. Springfield oversees the Breath Alcohol program, Chemistry department and Toxicology. Additionally, Dr. Springfield is active in several professional societies and has approximately twenty articles published in peer-reviewed journals.



CRIMINALISTICS LABORATORY

SUSAN R. HOWE, D.V.M., PH.D., DABFT - 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 International Association of Forensic Sciences, the Society of Forensic Toxicologists, and the Southwestern Association of 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.

Dr. Howe also serves as the chair of the Safety Committee, as well as serving on the Current Trends Planning Committee, and the editorial board of the TCME InnerPulse newsletter.

HUMAN IDENTIFICATION SERVICES

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 participated



in identification of victims from the Delta 191 and 1141 crashes at DFW Airport, and from the Mt. Carmel Incident in Waco, TX. Since joining the Tarrant County Medical Examiner's District in 2004, Dr. Metcalf has supervised the forensic identification of more than 300 unidentified bodies per year. Dr. Metcalf is commissioned as a Lt. Colonel in the DFW Medical Ranger Group, Medical Reserve Corps, Texas Medical Brigade, Texas State Guard. He participates as an active member of the Wesleyan Innocence Project, a group that reviews possible exoneration cases for the Dallas County District Attorney's Office. Dr. Metcalf also serves as co-editor of the TCME InnerPulse newsletter.

MORGUE/EVIDENCE SERVICES

TRACI WILSON - CHIEF OF MORGUE/LABORATORY SERVICES

Traci Wilson began her employment with the Tarrant County Examiner's Office as a Forensic Autopsy Technician in 1995. Prior to moving to Fort Worth she had worked as a Forensic Pathologist Assistant in Bossier City, LA. 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, and has since worked hard to implement new policies to streamline record keeping and evidence handling.



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, and 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.



TARRANT COUNTY MEDICAL EXAMINER'S DISTRICT GENERAL STATISTICAL SUMMARY 2009

T	Number
	15,528
Deaths reported to the office:	8,921
Deaths investigated :	2,864
Scenes investigated:	1,293
Bodies brought to the facility:	2,170
Medical Procedures:	2,170
External:	878 (40% of deaths certified)
Partial Autopsies:	398 (18% of deaths certified)
Complete Autopsies:	894 (42% of deaths certified)
Manner of Death:	
Deaths certified as Natural:	1,066 (49% of deaths certified)
Deaths certified as Accident:	665 (31% of deaths certified)
(Non-motor vehicle:	425)
(Motor vehicle:	240)
Deaths certified as Suicide:	253(12% of deaths certified)
Deaths certified as Homicide:	109 (5% of deaths certified)
Deaths certified as Undetermined:	60 (3% of deaths certified)
Deaths certified as Non-Human Remains:	17 (>1% of deaths certified)
Unidentified Bodies:	
Identified by office:	306
Identified by fingerprints:	223
Identified by odontology:	16
Identified by anthropology:	23
Identified by DNA:	7
Identified by other means:	37



2009 TARRANT COUNTY DE	ATH INVEST	IGATIONS
Manner of Death	Cases Investigated	Percentage
Natural	804	13%
Accidental	517	8%
Suicide	163	2%
Homicide	94	2%
Pending	1	>1%
Undetermined	43	>1%
Non-Human Remains	12	>1%
Reportable (Jurisdiction Waived)	4421	73%
Total	6055	100%

2009 DENTON COUNTY DE	ATH INVESTI	GATIONS
Manner of Death	Cases Investigated	Percentage
Natural	175	13%
Accidental	86	6%
Suicide	64	5%
Homicide	13	1%
Pending	0	
Undetermined	11	>1%
Non-Human Remains	2	>1%
Reportable (Jurisdiction Waived)	989	74%
Total	1339	100%





2009 JOHNSON COUNTY DE	ATH INVEST	IGATIONS
Manner of Death	Cases Investigated	Percentage
Natural	45	11%
Accidental	24	6%
Suicide	16	4%
Homicide	0	1
Pending	0	
Undetermined	4	1%
Non-Human Remains	1	>1%
Reportable (Jurisdiction Waived)	315	78%
Total	405	100%

2009 PARKER COUNTY DE	ATH INVESTI	GATIONS
Manner of Death	Cases Investigated	Percentage
Natural	42	11%
Accidental	38	10%
Suicide	10	3%
Homicide	2	>1%
Pending	0	-
Undetermined	2	>1%
Non-Human Remains	2	>1%
Reportable (Jurisdiction Waived)	279	75%
Total	375	100%



FIVE YEAR COMPARISON

TARRANT COUNTY

Manner of Death	2005	2006	2007	2008	2009
Natural	775	741	798	766	804
Accidental	443	471	504	492	517
Suicide	179	172	175	182	163
Homicide	132	109	109	118	94
Pending	8	5	14	0	1
Undetermined	25	8	32	38	43
Non-Human Remains	4	13	13	13	12
Reportable (Juris. Waived)	5221	5211	5085	4406	4421
Total	6787	6730	6730	6015	6055

DENTON COUNTY

Manner of Death	2005	2006	2007	2008	2009
Natural	135	141	154	152	175
Accidental	82	80	94	77	86
Suicide	52	49	48	55	64
Homicide	16	12	16	11	13
Pending	0	0	0	0	0
Undetermined	4	3	12	11	11
Non-Human Remains	1	0	2	1	2
Reportable (Juris. Waived)	858	860	870	1014	989
Total	1148	1145	1196	1321	1339

PARKER COUNTY

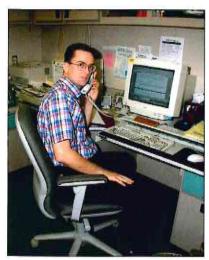
Manner of Death	2005	2006	2007	2008	2009
Natural	41	46	55	50	42
Accidental	29	35	35	37	38
Suicide	17	14	17	11	10
Homicide	5	1	4	4	2
Pending	0	0	0	0	0
Undetermined	2	6	0	2	2
Non-Human Remains	1	0	0	4	2
Reportable (Juris. Waived)	216	218	224	244	279
Total	311	320	335	352	375

	2005	2006	2007	2008	2009
AUTOPSY TYPE					
Autopsies:	1949	1906	2080	2081	2170
External	501	519	628	747	878
Partial	320	318	321	305	398
Complete	1128	1069	1131	1029	894
IDENTIFICATION SERVICES					
Remains Identified	237	270	284	279	306
CHILD FATALITY REVIEW TEAM					
Cases Reviewed	135	122	145	96	113

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 $_{
m the}$ district made inquiries into more than 8900 deaths in 2009. Forensic investigators are trained in a multidisciplinary 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. other pertinent sources to gather information that might be of value to the determination of the cause and manner of death.



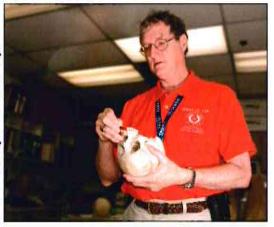
HUMAN IDENTIFICATION LABORATORY

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.

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

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.

awaiting release.



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 CHEMISTRY AND TOXICOLOGY LABORATORY

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

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.



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 in

1994. Under the program, forensic chemists establish intoxilyzer test sites, calibrate and maintain equipment, and train intoxilyzer operators, which benefits local police agencies.

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.



CHEMISTRY CASES AND SAMPLES

	2009 Cases Received	2009 Samples Received	2008 Cases Received	2008 Samples Received
January	215	509	219	485
February	198	455	191	433
March	197	463	185	378
April	167	340	248	527
Мау	192	434	208	543
June	247	598	464	986
July	224	577	295	564
August	160	347	225	479
September	183	396	226	726
October	159	389	230	590
November	120	320	170	451
December	244	579	207	500
Totals	2306	5407	2868	6662

BREATH ALCOHOL TESTING PROGRAM

<u> </u>	2009 Totals	2008 Totals
Breath Tests	3292	3380
Under 21	377	372
Affidavits	861	818
Testing Sites Supervised	238	19
Court Appearances (Days)	58	45
ALR Hearings*	284	415

^{*}ALR rules changed as of 1 September 2009, specifically requiring the defense to subpoena our attendance at these hearings. Further, the reasons for which a subpoena will be issued changed. The end result is that the number of appearances declined remarkably.

TOXICOLOGY CASES RECEIVED AND PROCESSED

N	Tarrant	Denton	Johnson	Parker	Other ME Cases	Other Cases	2009 Totals	2008 Totals
January	68	21	5	6	36	69	205	241
February	55	20	2	5	50	60	192	196
March	84	19	9	5	30	64	211	175
April	62	25	1	7	45	68	208	215
May	75	11	10	0	44	88	228	206
June	80	23	9	5	42	119	278	192
July	80	16	3	4	37	83	223	241
August	65	18	7	6	42	63	201	179
September	53	18	5	2	29	105	212	207
October	66	13	5	5	38	59	186	232
November	66	11	2	7	44	81	211	205
December	67	16	3	2	36	115	239	211
Totals	821	211	61	54	473	974	2594	2500

TOXICOLOGY SERVICES BY SAMPLE

	ABN	Alcohol	Cannabis THC	Cocaine	Oplate	Benzo- diazepine	Amphet- amine	Carbon Monoxide	Other	2009 Totals	2008 Totals
JAN	549	505	102	190	190	190	190	17	11	1944	2058
FEB	364	497	98	157	157	157	157	12	6	1605	1728
MAR	592	444	162	249	249	249	249	6	54	2254	1766
APR	519	549	163	226	226	226	226	12	64	2211	1769
MAY	544	529	98	189	189	189	189	0	43	1970	1908
JUN	568	665	146	259	259	259	259	15	63	2493	1720
JUL	588	580	116	222	222	222	222	9	85	2266	1751
AUG	549	553	114	207	207	207	207	0	57	2101	1341
SEP	543	477	94	178	178	178	178	12	59	1897	1940
OCT	400	521	90	176	176	176	176	7	67	1789	2038
NOV	458	366	131	214	214	214	214	15	92	1918	1646
DEC	544	399	164	218	218	218	218	12	63	2054	1769
Totals	6218	6085	1478	2485	2485	2485	2485	117	664	24502	21434

CRIMINALISTICS LABORATORIES

Since 1989, the Tarrant County Medical Examiner's District has operated a fullservice 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.

An ASCLD/LAB external audit was conducted during June of 2009, and subsequently the Crime Laboratory was awarded reaccreditation for a period of five years. The laboratory has also received a formal letter of accreditation from DPS.

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



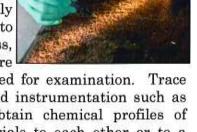
DNA Index System) laboratory. CODIS is the FBI's DNA data base that ultimately links all 50 states and 18 countries to provide a means of comparing forensic case work profiles. The data base search may result in linking unsolved cases to a single perpetrator and can provide significant investigative leads.

In 2009, the Forensic Biology laboratory provided 7946 services on 792 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 2009, the Trace laboratory provided 8896 services on 114 cases. In addition, 37 bodies were processed in the morgue for trace recovery, and crime scene assistance was provided on 2 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 2009, the Firearms laboratory provided 700 services on 71 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 2009, the Latent Fingerprint laboratory provided 5682 services on 117 latent print cases and 262 identification cases.

FORENSIC PHOTOGRAPHY

A fully equipped forensic photography laboratory was added to the 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 infrared techniques. Image enhancement also be performed. Pictures. enlargements, and other services provided to the medical examiner, to the courts, and to individuals for educational or research-based presentations.

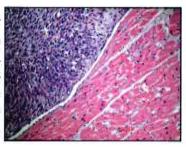


In 2009, the Forensic Photography laboratory provided 65,337 services on 1976 cases.

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 2009, the forensic histology section provided 35,977 services on 617 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.

In 2009, the secretarial section transcribed 1,886 autopsy cases, issued 2,187 death certificates, 4,559 cremation permits, and completed 3,100 records requests.

BUSINESS OFFICE



The Business Office was established to meet the increasing complexities of the day to day management of the business aspects of the Medical Examiner's office. The Business Manager, assisted by the Bookkeeper, comprise the business office, which provides support in the financial aspects of the office including budget preparation and

reporting, accounts payable, accounts receivable, personnel matters and other related fiscal issues. The Transportation of Human Remains contract is supervised by the Business Manager. In addition the Business Office is responsible for maintaining inventory of all supplies, computer hardware, office equipment and scientific instruments, and ensuring all service warranties are current.

BUILDING SUPERINTENDENT

The building superintendent is responsible for all of the general maintenance of the building, including minor repairs and preventive maintenance. He also oversees vendors and contractors and ensures work is properly done, and supervises work release individuals assigned to perform janitorial, grounds and other duties. His role is especially vital in maintaining all of the ventilation and air conditioning needs specific to a facility like the Medical Examiner's Office, with its inherent biohazards and the investment in precision scientific instruments that cannot tolerate temperature changes.

CHILD FATALITY REVIEW TEAM

Child deaths attributable to illness, birth defect, delivery difficulty, neoplastic disease, and other natural causes account for approximately one out of four 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

	20	009	2008 96		
Total Child Deaths	1	13			
Natural Causes	28	25%	39	41%	
Accident	42	37%	21	22%	
Homicide	17	15%	13	13%	
Suicide	4	4%	7	7%	
Undetermined	22	19%	16	17%	

EDUCATION

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. Annually over 600 persons are provided 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



Forensic Rounds meets every Tuesday (except in July and December) at 8:00 am in the 3rd floor annex conference room. A large variety of topics are presented by either the ME staff or an invited speaker. In addition to medical examiner staff the audience includes law enforcement personnel, attorneys, medical personnel, and medical students.

ANNUAL CURRENT TRENDS CONFERENCE



Current Trends is a conference organized by the Tarrant County Medical Examiner's Office that is open to anyone in the medical, law enforcement, judicial or medicolegal professions, or anyone interested in the forensic sciences. Usually held in December of each year, the conference seeks to educate participants in what is new or as the name says, what are the "current trends" in forensics. Depending on what courses are taught, TCLEOSE, CNE, CME and CLE credits may be awarded. At the 2009 conference the Zachariah Award of Excellence was introduced, honoring our former Technical Administrator, Dr. Nannepaga Zachariah, who passed away in February of 2009.

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. These sessions typically last for two weeks during which the medical



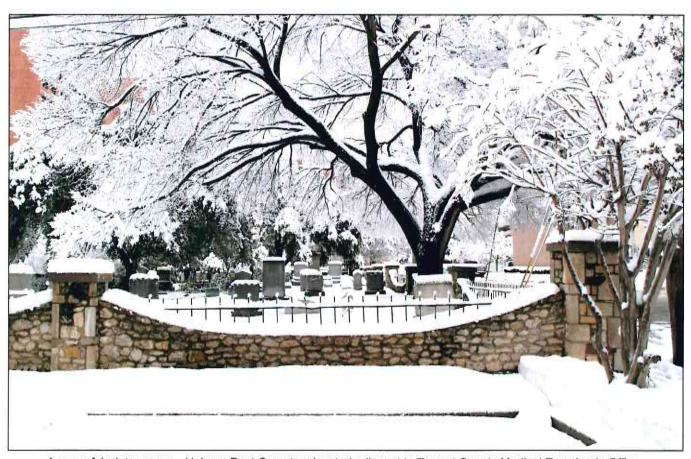
examiner staff arranges lectures and practical sessions. A working relationship was established between Texas Wesleyan University and the Tarrant County Medical Examiner's Office to facilitate this education at the international level. TWU has provided housing for our foreign students on several occasions.

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 to sit for their board examination in forensic pathology and then to pursue a career as a forensic pathologist.

STUDENT VOLUNTEERS/INTERNS

Any student over the age of 18 who wants to get exposure to the medical examiner's activities can apply for a volunteer position. There are restrictions as to what areas a student may have access to, so the individual student's needs and goals must be evaluated to see if there is a compatible opportunity available at the time. Safety and liability issues must also be considered. Appropriate background checks and immunizations may be required before beginning an assignment.



A peaceful winter scene - Hebrew Rest Cemetery located adjacent to Tarrant County Medical Examiner's Office.

PHOTO CREDITS: The majority of pictures in this report were taken by Larry Reynolds. Selected photos, including the snowy scene above, were contributed by Roger Metcalf. Cover photo was provided by Andrea Corder.