



المؤتمر الدولي الأول لعلوم الطب الشرعى بـإمارة رأس الخيمة

**Ras Al Khaimah First International
Forensic Sciences Conference**



RAKFSC
2023





RAKFSC
2023

صاحب السمو الشيخ سعود بن صقر القاسمي عضو المجلس الأعلى للاتحاد حاكم رأس الخيمة

دريصون على تطوير منظومتنا الأمنية لتشمل
كافحة أرجاء إماراتنا الغالية لمواصلة مسيرةتنا
التنموية الشاملة ولينعم جميع سكان إماراتنا
بأعلى مستويات الأمن الذي يعد ركيزة
أساسية لتحقيق النمو والتطور وبناء مستقبل
أكثر إشراقة لأجيالنا القادمة

We are eager to enhance our security system to encompass every corner of our beloved emirate. This is crucial to sustain our holistic development journey and ensure that all emirate residents experience the utmost security, a fundamental pillar for fostering growth, progress, and a brighter future for generations to come.



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General Supervisor of the Conference

**Major General/ Ali Abdullah Bin Alwan Al-Nuaimi
Commander in Chief of Ras Al Khaimah Police**

Under the patronage and presence of His Highness Sheikh Saud Bin Saqr Al Qasimi, Member of the Federal Supreme Council – Ruler of Ras Al Khaimah Emirate – RAK Police General Headquarters holds Ras Al Khaimah First International Forensic Sciences Conference. Within the framework of the Year of Sustainability, RAK Police General Headquarter seeks to keep pace with the best practices in the field of forensic medicine and forensic sciences, promoting the institutional learning process, sharing knowledge and experiences of forensic sciences, and envisioning the development of forensic sciences. Therefore, the conference is convened to promote our journey towards excellence, creativity and innovation, and futures-orientation of forensic science and criminology. At the same time, the conference is considered an opportunity for experts and specialists in forensic medicine and forensic sciences to meet at the UAE, Gulf, Arab and international levels in the capital of Gulf Tourism (Ras Al Khaimah), which is striving towards making such international conferences to receive an elite of forensic scientists in one place at the same time.

Under the constant and sustainable directions and follow-up of His Highness Sheikh Saud Bin Saqr Al Qasimi, Member of the Federal Supreme Council and Ruler of Ras Al Khaimah, we are urged towards continuous development and improvement and keeping pace with updates in all fields. In addition, the direct supervision of His Highness Lt. General Sheikh Saif bin Zayed Al Nahyan, Deputy Prime Minister and Minister of the Interior, made Ras Al Khaimah Police a modern, knowledgeable police, having a constant aspiring to excellence and leadership in all fields. The concern of RAK Police General Headquarters to host this conference, and support such scientific meetings, comes in accordance with the directives of our wise leadership aimed at linking development, improvement and prosperity with security, and achieving global competitiveness, national indicators and strategic objectives of the Ministry of Interior in all fields of security, peace, public tranquility and safety, aimed at achieving international competitiveness in the field of security and safety, and the quality of security life for all members of society.



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Deputy General Supervisor of the Conference

Brigadier General / Jamal Ahmed Al-Tair

Deputy Commander in Chief of Ras Al Khaimah Police

In fact, The organization of Ras Al Khaimah First International Forensic Science Conference is a sustained effort to maintain professional knowledge and practices in forensic sciences, ensure continuous learning about forensic medicine, and establish a solid research base that adds value to the scientific work of Ras Al Khaimah Police and promotes research and innovation between Ras Al Khaimah Police and many law enforcement bodies in the UAE and International Police in order to reach a distinguished position for Ras Al Khaimah Police characterized by communication and achievement (security, communication and innovation).

His Highness Sheikh Saud Bin Saqr Al Qasimi, Member of the Federal Supreme Council and Ruler of Ras Al Khaimah , has always been the first supporter of the implementation of the best international conferences in the Emirate. In addition, His continuous instructions to develop perceptions and positive change for the better are our driving force for leadership in all sectors. Certainly, one of the main common goals of our work with our strategic partners in the world is actually to establish justice in societies and spread happiness and positivity.

This conference is also an opportunity to meet experts and specialists in the fields of forensic medicine and forensic sciences in the capital of Tourism (Ras Al Khaimah), which welcomes everyone. This is the result of stimulating initiatives stemming from fourth-generation strategies and the fourth industrial revolution driven by technological transformations such as artificial intelligence, which will ultimately shape our societies in an unprecedented way.



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Head of Conference Preparation and Organization Team

Lieutenant Colonel / Yousef Abdullah Al-Tunaiji
Chief of Al Madinah Comprehensive Police Station

On behalf of the Organizing Committee, I would like to accord a warm welcome to all on the first edition of the First International Forensic Science Conference, which will be held from October 30th to November 1st, 2023.

Under the patronage of His Highness Sheikh Saud Bin Saqr Al Qasimi, Member of the Federal Supreme Council and Ruler of Ras Al Khaimah, RAK Police General Headquarters organizes the International Conference on Forensic Sciences with the aim of transferring knowledge and experiences of its Participants globally, and with the aim of developing the skills and competencies of the personnel in this field. The conference will involve more than 100 professors, doctors and experts from about 30 countries around the world.

At this conference, all experts (from the Middle East and the World) in the fields of Forensic Medicine, Anthropology, Dentistry, Chemistry, Crime Scene Investigations, Forensic Nursing, and Evidence Tracking come together to meet, share their practical experiences, and share their knowledge on the most pressing issues surrounding our region. We are delighted to host you all in the vibrant city of Ras Al Khaimah, where you can share your expertise and contribute to the development of forensic sciences. The First International Forensic Sciences Conference will have a significant role in enriching knowledge in the field of forensics and criminology, and will facilitate keeping security and crime control personnel abreast of the latest international developments in the field of forensic medicine.



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Manager of RAK Police Forensic lab and Forensic Medicine

Dr Hesham Farag

Crime is a part of human behavior that no society devoid of. Crime has begun since the creation of man on earth and will continue as long as there is life. With globalization and the opening of societies and cultures to each other, crime is developing rapidly. at the same time, the research and scientific methods used to uncover the crime are also rapidly developing. The battle will continue between the criminal and society, and the society will win in most cases when the offender is arrested and sentenced to the appropriate punishment for his crime. But the criminal will also win in rare cases when we are unable to collect technical evidence that convicts him. For this reason, the capabilities of forensic laboratories will determine the success or failure of solving the mystery of the cases and reaching the perpetrator.

Therefore, the Ras Al Khaimah police general headquarter is holding the first international conference for forensic sciences in order to exchange experiences between international experts from all over the world to raise the capabilities of workers in the criminal and forensic laboratory, achieving the first strategic goal of the ministry of interior in the United Arab Emirates, which is to achieve security and safety.



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Conference Agenda

First Day 30/10/2023

HALL (A)

Talk

10:00–10:25 AM

Prof Dr Claude Roux – President of International Association of Forensic Sciences IAFS Australia

Revisiting the essence of forensic science and the Sydney Declaration Why does it matter?



Talk

10:25–10:50 AM

Professor Denis A. Cusack – President of the European Council of Legal Medicine

The Role, Function, International Harmonisation and Accreditation of Forensic Medicine, Pathology and Science Services for Justice, Health and Community



Talk

10:50–11:15 AM

Prof Dr Uwom O. EZE – President of African Society of Forensic Medicine ASFM

Forensic science, death investigation and the police: defining a system



Talk

II:15–II:40 AM

Prof Dr Ashraf Mozayani Executive Director of Forensic Sciences Learning Lab and Professor at Texas Southern University

Minimizing Errors in Forensic Science Analysis to Improve Criminal Justice



Talk

II:40–I2:00PM

Dr Hesham Farag – Vice President of AUFT, Founder of Egyptian Forensic Medicine Fellowship

Faulty forensic evidences and wrongful conviction



COFFEE BREAK

Talk

I2:15–I2:35PM

**Retired Lt. General Dr. Fahd AlDosari
Former Director General of the General Department of Investigations Kuwait**

Evolution of criminal identification: From tracker of Arabia to AI advancement



Talk

I2:35–I2:55PM

DR. Mohammed Ashraf Tahir Director General, Punjab Forensic Science Agency, Lahore Pakistan

Role of Geographic Profiling and Mass DNA Screening in Identification of Serial Rapist and Killer



Talk

12:55–13:15PM

**Dr. Peter W. Pfefferli SWISS FORENSIC EXPERT,
Switzerland**

**Best Practice Standards – A Key Factor for Quality in Forensic
Science**



Talk

13:15–13:35PM

**Prof Dr Mona Elgohary Professor and consultant of
forensic medicine, Faculty of medicine, Tanta University
EGYPT**

Myths and Misconceptions in forensic science



13:35–13:55PM

**Prof Dr Abeer Ahmed Zayed Head of the Forensic
Medicine and Clinical Toxicology Department, Faculty
of Medicine, Nahda University NUB Banisuef Egypt.**

**Quality Evaluation of Expert Testimony in Malpractice
Allegations**



DISCUSSION 13:55 – 14:05PM

COFFEE BREAK

Talk

14:15–14:35PM

**Dr. Johansen Oduor Nyayal Chief Government
Pathologist, Ministry of Health Nairobi Kenya , Acting
Coroner General, Department of Justice, State Law
Office, Kenya**

**A 29 year Old Female Presenting with a Fatal stroke due to
embolism of a cardiac myxomatous neoplasm diagnosed at
a Kenyan forensic Autopsy Services: A case Study**





Talk

14:35–14:55PM

**Prof Dr. Mohammed Madadin – MBBS, MD
Imam Abdulrahman Bin Faisal University**

Forensic Neuropathology; standards, current and future practice



14:55–15:15PM

**Dr Sahar Ahmed Tawfick Histopathology consultant
Ras Al Khaimah forensic laboratories, UAE**
Anomalous coronary artery identification at death



DISCUSSION 15:15 – 15:25 PM

LUNCH



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Prof Dr Claude Roux

Distinguished Professor Claude Roux, PhD, FRSN
President of International Association of Forensic Sciences IAFS Australia

I.I Biography

Vice-President of the Australian Academy of Forensic Sciences

Past-President of the Australian & New Zealand Forensic Science Society

After completing his undergraduate and PhD studies in forensic science at the University of Lausanne, Switzerland, Claude Roux migrated to Australia in 1996. Claude has been pivotal to the development of forensic science in his adopted country over the past 27 years by developing and leading the first undergraduate degree and PhD program in forensic science. He currently is Professor of Forensic Science and Director of the Centre for Forensic Science at the University of Technology Sydney (UTS). His research activities cover a broad spectrum of forensic science, including trace evidence and chemical criminalistics, documents, fingerprints, forensic intelligence and the contribution of forensic science to policing and security. His professional motivation has been largely driven by his vision of forensic science as a distinctive academic and holistic research-based discipline.

Throughout his career, Claude has published more than 200 refereed papers and 26 book chapters and a large number of conference presentations. He has attracted \$5.5M in competitive research grants in the last 10 years, including Australian Research Council, other Government and industry funding. He also received more than 20 prizes and awards including from the National Institute of Forensic Science, the 2004 AIPS Tall Poppy Award and the 2015 Deputy Vice-Chancellor Research Medal for Research Impact (inaugural award). He has a long and established reputation for effective collaboration with forensic and other government agencies in Australia and overseas, as well as with other academic partners.

Claude is a member of the editorial board of six scientific journals and of a number of working and advisory groups in Australia and overseas. He was President of the Australian & New Zealand Forensic Science Society (ANZFSS) from 2010 to 2016. He is the current President of the International Association of Forensic Sciences, a Council member of the Australian Academy of Forensic Sciences and a Fellow of the Royal Society of New South Wales. He also serves on the Scientific Advisory Board of the International Criminal Court.

I.2 Abstract

Revisiting the essence of forensic science and the Sydney Declaration Why does it matter?

The Sydney Declaration recently attempted to define forensic science through its foundational basis, beyond organizations, techniques or protocols [1]. This presentation will provide an overview and update of the Sydney Declaration. It will also illustrate its significance, including for the UAE forensic science community. It is argued that the principles proposed in the Sydney Declaration should underpin the practice of forensic science and guide education and research directions by providing a solid foundation and improved shared understanding between all practitioners and stakeholders, regardless of the level of technological development.



Prof Dr Denis Cusack

MB, BCh, BAO, FRCPI, FFFLM, FCLM, FCIArb, DLS, Barrister-at-Law
President of the European Council of Legal Medicine

2.1 Biography

Denis Cusack qualified as a medical doctor from University College Dublin, Ireland (1980) and trained in postgraduate clinical medicine in General Internal Medicine & Diabetes/Endocrinology in hospitals in Ireland and Boston, Massachusetts, USA (1986–1987). He then qualified as Barrister-at-Law from the Kings Inns, Dublin (1991) and practised in the Irish Courts as Barrister, particularly in the area of medical and healthcare law (1991–1998). Continued in clinical practice in Internal Medicine and developed and continued professional medical specialty practice and training in Forensic and Legal Medicine. He is currently Director (Head) of the Medical Bureau of Road Safety, the national forensic intoxicant laboratory for Ireland (1997 to date). He was Lecturer and then Full Professor of Forensic & Legal Medicine at the School of Medicine, University College Dublin (1992–2017) and at Penang Medical College, Malaysia (2000–2017) and remains as Full Professor Emeritus of Forensic & Legal Medicine at UCD involved in postgraduate teaching and research. He has served in the National Coroner Service of Ireland (Death Investigation System) since 1992 as Coroner/Senior Coroner for the District of Kildare in Ireland (1995–2022), Deputy Coroner for Dublin City (1992–1996) and Deputy Coroner for County Clare (2023). He currently serves as President of the European Council of Legal Medicine (of 33 European countries) and as Vice-President and Member of the Presidium of the International Academy of Legal Medicine (a worldwide body). He is Founding Consultant Editor of the Medico-Legal Journal of Ireland (1995–2022); a Past President of the Coroners Society of Ireland (2008–2010); and Past President of the Medico-Legal Society of Ireland (2015–2017). He is a Member of the Scientific Advisory Board at the International Criminal Court and of the Board of the International Council on Alcohol, Drugs and Traffic Safety and also serves on a number of other expert committees. He is an International Assessor for Medicine Programmes, Portuguese Agency for Assessment and Accreditation of Higher Education. He is Reviewer for a number of international forensic and other medical journals. His Specialist and research interests and publications include forensic medicine, forensic death investigation, intoxicated driving, road traffic medicine, medico-legal issues in healthcare practice and medical ethics and professionalism.

Full profile and publications available on <https://people.ucd.ie/denis.cusack>
and <https://www.researchgate.net/profile/Denis-Cusack>

2.2 Abstract

The Role, Function, International Harmonisation and Accreditation of Forensic Medicine, Pathology and Science Services for Justice, Health and Community

Forensic Medical Specialists have particular duties and obligations in the examination of both the dead and living victims of criminal assault and injury and also in examination of the alleged perpetrators of criminal actions. Their duties are to the persons involved but also to the wider society and particularly in the context of the justice and health systems. The forensic physicians and pathologists work in close collaboration with scientific colleagues and law enforcement agencies and must present their independent and unbiased findings to the criminal, civil and coronial courts to assist in the administration of justice. In doing so, they must translate their forensic work into medical, scientific, police and judicial fora. Accredited forensic and analytical standards are core prerequisites for the maintenance of evidential credibility, independence and scrutiny. Government Departments of Justice, Health and Transport as well as Judges, Coroners, Police Officers and Lawyers are recipients of such expert results and testimony in framing their respective tasks for society. In this presentation, national and international examples of forensic examinations by forensic physicians and pathologists of deaths and injuries and the role of forensic science and medicine in road traffic safety in driving under the influence will be demonstrated.



Prof Dr Uwom Eze

JP, MBBS, FWACP, FCPATH (ECSA), M ForensMed (Melbourne), DipCrim, MSc, LCS.
President of African Society of Forensic Medicine ASFM

3.1 Biography

**Chief Consultant Forensic Pathologist and Clinical Forensic Physician,
President of African Society of Forensic Medicine (ASFM)**

**Uwom Eze is a Forensic Pathologist and Clinical Forensic Physician and has expertise in Legal,
Criminology & Security Psychology, and Organizational Leadership.**

His professional interests and competencies encompass Forensic Death Investigation, Management of the Dead, including Disaster Victim Identification (DVI), Forensic Injury Evaluation and Interpretation, Management of Sexual Violence and Child Abuse, Evaluation of Medicolegal Systems, Expert Witnessing, and Professional Ethics. He develops relevant course content designed to address practical needs in a given context. From 2015 to 2019, he was a Regional Forensic Coordinator on international forensic missions to the Near and Middle East (NEMA) and South Asia regions with a global organization based in Geneva.

Meanwhile, Dr Eze has worked as a consultant for several years and is currently Chief Consultant Forensic Pathologist and Head of the Forensic Medicine Unit, Department of Pathology, at the University College Hospital (UCH), Ibadan. His professional experience and engagements span across countries in Africa, South Asia, the Middle East, Australia, the UK, the US, and South America, and he has variously functioned as a lecturer, facilitator, trainer, and supervisor for undergraduate medical students and postgraduate students and professionals in Forensic Science, Pathology, and related courses. In 2016, he served on the United Nations Forensics Working Group in Geneva on The Revised United Nations Manual on the Effective Prevention and Investigation of Extra-legal, Arbitrary, and Summary Executions, also known as The Minnesota Protocol on the Investigation of Potentially Unlawful Death. He is currently a member of the Medico-Legal Death Investigation–International Community of Practice (MLDI–ICoP).

Dr Eze is a Justice of the Peace (JP) and holds leadership positions in local and international professional associations. He is currently the Chairman of the College of Nigerian Pathologists (CNP) Oyo State Chapter and the President of the African Society of Forensic Medicine (ASFM), the Pan–African Association for forensic medicine and science practitioners. And is the Director of a Forensic Medicine and Pathology Consultancy that delivers expert and independent medicolegal services by standard forensic practices.

3.2 Abstract

FORENSIC SCIENCE, DEATH INVESTIGATION AND THE POLICE: DEFINING A SYSTEM

Death Investigation is universal and the police play a central role in the operations and related procedures as an integral part of internal security, maintenance of law and order, and accountability in the society. The main thrust of such an investigation is to establish the cause and manner of death and associated circumstances. Only in understanding the circumstances of death can an informed approach to prevention and mitigation be designed and applied in any context in the interest of affected families and the larger community. Furthermore, it serves the pursuit of justice.

The multidisciplinary nature of forensic science and inherently integrated approach to investigation which is predicated on physical evidence provides a verifiable, credible and transparent pathway to understanding the circumstances of death and the underlying mechanisms. While the techniques of forensic science are at the core of its expression, the true value transcends procedures and is anchored on processes and standards operated within a functional system. Therefore, this is to elicit a clear delineation of the nature and ingredients of a forensic death investigation in a given territory.



Prof Dr Ashraf Mozayani

PharmD., Ph. D, F-ABFT

Executive Director of Forensic Sciences Learning Lab and Professor at Texas Southern University

4.1 Biography

Dr. Ashraf Mozayani is an international and nationally known forensic scientist with decades of experience in forensic laboratory management, forensic toxicology, and pharmacology. She is the Executive Director of Forensic Sciences Learning Lab and a Professor at Texas Southern University. Prior to this position, she was the Crime Lab Director, as well as Chief Toxicologist, for Harris County Institute of Forensic Science for more than fifteen years, and the Chief Toxicologist in Washington D.C. Dr. Mozayani is former member of Texas Forensic Science Commission selected by current and prior Texas Governors. Dr. Mozayani received a Doctorate of Pharmaceutical Sciences and Toxicology from the University of Alberta in Canada and a Doctor of Pharmacy from the University of Tehran in Iran. She is a board-certified fellow from American Board of Forensic Toxicologist. Dr. Mozayani served as the President of Southwestern Association of Toxicologist, Board of Directors of Society of Forensic Toxicologists and Board of Directors of American Society of Crime Lab Directors. She is currently an active member of Forensic Research Committee. Dr. Mozayani was the recipient of Harger Toxicology Award from American Academy of Forensic Science in 2019. Dr. Mozayani has served forensic community as a crime lab director, chief Toxicologists, clinical lab director, assessor for different accredited bodies, mentor and Quality assurance manager, in ASCLD/LAB, ABFT, NAME, CLIA, CAP and ISO/IEC accredited laboratories for more than twenty years. She has authored and co-authored six books on topics such as Forensic Laboratory Management, Investigation of Drug Facilitated Sexual Assault, Collection & Management of Evidence from Scene to Courtroom, and Forensic Drug Interactions.

Dr. Mozayani has been a Senior Forensic Science Advisor and Instructor for the International Criminal Investigative Training Assistance Program (ICITAP), under the aegis of the Criminal Division of the U.S. Department of Justice. At this position, she was a Senior Forensic Advisor to the government of Uzbekistan, Thailand, and also an ICITAP Forensic Science instructor/assessor for all aspects of laboratory management and toxicology laboratory operations in the countries of Morocco, Sri Lanka, Egypt, Turkmenistan and Somalia. Dr. Mozayani is an assessor for National Laboratory Certification Program and licensed as a clinical lab director in States of Florida, New York, and Louisiana. Dr. Mozayani has been as a forensic consultant with law enforcement, forensic laboratories staff, attorneys, and judges for more than twenty-five years. She is an expert toxicologist in drug and driving impairment (DUI/DWI), postmortem toxicology and drug facilitated crime. She has testified in civil and criminal cases as an expert witness or consultant related to forensic toxicology along with pharmacology in the states of Texas, Virginia, Maryland, Oklahoma, Florida, Kansas, California, Idaho, Montana, the Federal Court in Massachusetts, and the numerous Military Courts of the United States.

Research Interests: Dr. Mozayani's research crosses several topics from forensic science leadership, accreditation, criminal justice reform, forensic science and forensic toxicology including postmortem interpretation, Drug interactions, driving while impair, drug facilitated crimes, laboratory accreditation and management.

Some of Dr. Mozayani's major areas of expertise include postmortem interpretation of drugs , role of alcohol and drugs in drug-facilitated sexual assault, human performance toxicology/behavioral toxicology and impaired driving and workplace. Forensic Science.

4.2 Abstract

Minimizing Errors in Forensic Science Analysis to Improve Criminal Justice.

The underlying goal of the forensic science community is to minimize the possibility that an innocent person is wrongly convicted, while utilizing as much technology, scientific reasoning, and practical laboratory skill to determine the correct answer to the forensic puzzle before them. The Past President of the AAFS, an attorney stated that wrongful convictions have various causes, including: Inaccurate eye witness testimony, Inappropriate testimony, Lack of foundational science to support the selected analysis, Human factors (in the police department, crime laboratory, courts), and/or Inadequate investigation.

At least three of those five causes may involve forensic scientists. The bright light of public examination of the forensic sciences has not been kind to the profession. As a result of such adverse publicity, many forensic science associations and organizations have established a code of ethics for their memberships. In 2016 a National Code of Professional Responsibility, containing 16 responsibilities for forensic analysts and managers, was created by the National Commission on Forensic Science (NCFS). The AAFS Standards Board has published several Standards and Best Practice Recommendations in a number of forensic disciplines, and is constantly working to develop standards in many others.

This presentation will focus on the problems and inconsistencies that have surfaced in the forensic sciences, update the attendees on recently published standards and recommendations, and provide resources to allow the international forensic science community to comply with modern practice.



Dr Hesham Farag

PhD Forensic Medicine Master Degree in Law Diploma in Human Rights
Vice President of AUFT, Founder of Egyptian Forensic Medicine Fellowship

5.1 Biography

Forensic Medicine Consultant in RAK Forensic Laboratories, UAE, Manager of RAK Police Forensic lab and Forensic Medicine, Member of MENA

Dr. Farag is currently Manager of RAK Police Forensic Laboratory and Forensic Medicine, Ras Al Khaimah, United Arab Emirates and the head of Ras Al Khaimah forensic laboratories development team .

Dr. Farag began his career as a forensic medicine doctor in Assuit, Egypt. Further on in his career he served as a forensic medicine specialist in Saudi Arabia and Kuwait. He was the head of Egypt's Cairo Central Morgue for 3 years in which he underwent many challenges including the 30th of June revolution in 2013. During his position as the head of the Egyptian forensic medicine authority (EFMA) he managed forensic investigations in numerous mass disasters including plane and train crashes and explosions, where he led the DVI teams and forensic explosives team, he also led the forensic investigation in many controversial cases. Throughout his career Dr. Farag's main concern was the progress and development of the forensic facilities he worked in, He directed many projects including renovation of Cairo Morgue and other forensic laboratories, he constructed the forensic biology and DNA lab in Tanta city, two Forensic chemistry laboratories and two forgery laboratories in Egypt. Dr. Farag also introduced three new specialized clinics for violence against women for the first time in Egypt.

During this period Dr Hesham involved the EFMA in numerous scientific activities and collaborations with Egyptian Universities and the Egyptian Ministry of Health. He is the Founder of the Egyptian Forensic medicine Fellowship, which has become one of the most distinguished certificates for learning Forensic medicine in Egypt.

In addition to collaborating between EFMA and other organizations in USA, Canada, France and UK, he formed collaborations with the UN-ODC, ICRC and other international bodies. He was also involved in changing some laws in Egypt the most important were the Female Genital Mutilation law, Sexual harassment law and the law of Drug abuse table.

Dr. Farag has published 18 forensic books including topics like crime scene investigation, sex crimes, medical errors, child abuse, terrorist bombings and others. He has lectured for many organizations including the UNODC, united nations population fund, national center for judicial studies of Egypt and the ICRC.

He has numerous internationally published papers on subjects like wound age and sexual assault. Dr. Farag has supervised many master and PhD thesis, he is an examiner in Egyptian universities and was a member of the examiner panel in numerous master and PhD degrees. Dr. Hesham also provides training on topics like criminal evidence, medical errors, examination of sexual assault cases and autopsy.

5.2 Abstract

Faulty forensic evidences and wrongful conviction

An accused shall be presumed innocent until proven guilty in a legal and fair trial (article 28 of the constitution of the UAE). The prosecutor accused any person based upon a reasonable and solid evidences.

Evidence in the judicial system can be divided into two general types: testimonial evidence and physical evidence. Testimonial evidence is a statement said in the prosecution or the court by a competent witness. physical evidence can be any object or material relevant in a crime. It can be any tangible thing, large or small. This is also called real evidence or technical evidence.

One of the most important physical evidence is the forensic evidence which can link a suspect with a victim or with a crime scene.

So, Forensic evidence plays a vital role in the decision-making process of judges, in order to make a decision to prosecute or set free the defendant in a particular case (National Research Council, 2009; PCAST, 2016).

One of the greatest tragedies in the criminal justice system is the conviction of a person for a crime he or she did not commit. Erroneous convictions can have immeasurable consequences for exonerees, original crime victims, and families. Additionally, they may also have long-lasting negative effects on the witnesses, investigators, lawyers, judges, and other criminal justice professionals involved in erroneous convictions.

In this paper I will discuss wrongful convictions to understand the root causes of these tragic events.



Dr. Retired Lt. General Dr. Fahd Ibrahim Al-Dosari

Master's in Forensic Sciences – PhD in Law

Former Director General of the General Department of Investigations Kuwait

6.1 Biography

Bachelor of Law – University of Beirut 1983, Master's in Forensic Sciences – George Washington University – America 1987, PhD in Law – University of Exeter – Britain 1999)

Training courses:

Forensic evidence and crime scenes. And explosives (United States – Britain – Egypt – Kuwait)

Administrative positions

Crime Scene Officer (1977–1987), Head of the Fires and Explosives Department (1984–1994), Crime Scene Manager (1999–2001), Director of Forensic Medicine (2001–2003) Director of Forensic Laboratories (2003–2009), Director General of Criminal Evidence. (2009–2015), Director General of the General Department of Investigations

Training tasks:

Specialized training courses in crime scene inspection. Fires and explosives. And creative thinking in criminal investigation.

(Kuwait University – Police Academy – Kuwait. Naif University for Security Sciences. Kuwait Institute for Judicial Studies. Dubai Institute for Judicial Studies.

Teaching tasks: Teaching the forensic evidence course at Kuwait University, college of rights, the College of Science, and the Faculty of Medicine.

Participation in many scientific conferences in the United States, Britain, and France.

Scientific publications: First year of success (2015), Physical evidence between theory and practice (1994), Physical evidence from the crime scene to the courtroom (2000), Material evidence in the age of knowledge (2015)

(A course at the Saad Al Abdullah Academy and also at the Dubai Academy for Security Sciences)

6.2 Abstract

“Evolution of Criminal Identification: From Tracker of Arabia to AI Advancements”

This scientific presentation explores the remarkable journey of criminal identification techniques, tracing their evolution from ancient methods used by “Trackers of Arabia” to the cutting-edge applications of Artificial Intelligence (AI) in the modern era. The presentation will delve into the historical context of Arabian trackers and their expertise in interpreting physical evidence and human behavior.

We will then transition to the contemporary landscape, highlighting the pivotal role of AI in revolutionizing criminal identification. By leveraging machine learning algorithms, facial recognition systems, and data analytics, AI technologies have significantly enhanced law enforcement’s ability to identify and apprehend criminals.

Through a comprehensive review of historical and technological advancements, this presentation aims to provide a holistic understanding of how criminal identification has evolved over time, ultimately shedding light on the transformative impact of AI in modern law enforcement.



Dr. Mohammed Ashraf Tahir

Doctor of Philosophy in Forensic Immunology. Royal College, Glasgow, Scotland, U.K. Master of Science in Food Science and Microbiology (1976). Master of Science with honors in Food Chemistry and Biochemistry (1973). Director General, Punjab Forensic Science Agency, Lahore Pakistan

7.2 Biography

Director General, Punjab Forensic Science Agency, Lahore – Pakistan

After completion of Ph.D. from University of Strathclyde, Royal College, Glasgow, he joined crime laboratory in Youngstown Police Department, Ohio in 1977, then he moved to Illinois State Police Forensic Sciences and served there for 15 years and retired. He was then asked to start Forensic DNA Laboratory Setup in Indianapolis, where he spent 15 years and then got retirement.

After retirement, in 2004, he established his own private Forensic DNA testing laboratory named Strand Analytical Laboratory. During that time he was contacted by Ohio State to setup DNA forensic laboratory in Cuyahoga County Coroner Office. He took over this forensic laboratory as executive director.

Dr. Tahir served on FBI Directors DNA advisor Board to make Q/A standards for forensic DNA analysis.

He resigned from Forensic Laboratory, Cleveland and upon request from Government of the Punjab, establish Punjab Forensic Science Agency in 2008, currently he is working as Director General of this laboratory since 2011. Government of the Punjab has entrusted him an additional charge of Director General, Punjab Agriculture Food and Drug Authority for its establishment which is near to completion.

Following are some of his high profile cases: Mike Tyson vs. State of Indiana (World Heavy Weight Champion), Gary Dotson vs. State of Illinois, Sam Sheppard vs. State of Ohio (Fugitive Movie from Hollywood), and Harbold vs. State of Illinois. (Case of Century).

7.2 Abstract

Role of Geographic Profiling and Mass DNA Screening in Identification of Serial Rapist

In January 2018, a minor girl was abducted from outside her house in Kasur, Pakistan. Since April 2015, it was the 8th incident of same kind in same town. The dead body of eighth victim Zainab Amin was recovered from a heap of garbage near her house. The evidence items collected include clothing, vaginal and anal swabs of the victim. Semen was identified on all these items which was processed for DNA. The obtained DNA profile of an unknown male was consistent with DNA profiles obtained in previous seven cases, which confirmed involvement of same serial rapist and killer. Law enforcement agencies had no information and clue about the possible suspect. Crime scene investigation team of Punjab Forensic Science Agency determined that all eight incidents took place in a radius of 2.5 kilometer. Based on geographic profiling of all crime scenes, a strategy was devised to collect buccal swabs of male population aged 20 – 40 years from the identified area. Total 1187 samples were collected and processed for DNA profiling. The DNA profile obtained from the 814th sample was found to be match with unknown male DNA profile obtained in all eight cases. The suspect was arrested by the police and he then confessed about committing all these crimes.

This strategy of geographic profiling and mass DNA screening was successfully used for the first time in Pakistan and it helped to identify the serial rapist and killer. The suspect was trialed and convicted by the court. He was sentenced to death penalty and was executed during October 2018. In such scenario, when there was no clue about the suspect; geographic profiling helped to predict about the probable location of the criminal involved in series of crimes and DNA analysis established his identity and confirmed his involvement in all eight incidents.



Dr Peter Pfefferli
PhD
SWISS FORENSIC EXPERT, Switzerland

8.1 Biography

Peter W. Pfefferli has been in forensic science for more than 40 years, as an expert and as a manager. He holds a PhD degree from the University of Lausanne (Switzerland) and is a graduate of the FBI National Academy (USA). As a former police officer and head of forensics at the Zurich Police Department (Switzerland), he is very familiar with the operational aspects of forensics including crime scene work. In addition, his focus has always been on forensic document examination and forensic quality assurance. He is a founding member of the European Network of Forensic Science Institutes (ENFSI) and he was a long-time member of the INTERPOL International Forensic Science Managers Symposium. He has been a lecturer in Forensic Science at the University of Zurich as well as the Prosecutors Academy of the University of Lucerne (Switzerland). He retired from the police in 2017 and now works internationally as an expert in forensic quality assurance in different forensic areas as well as a forensic document examiner in private practice.

8.2 Abstract

Best Practice Standards – A Key Factor for Quality in Forensic Science

Quality assurance has been and still is a critical issue in forensic science. Especially when, due to mishaps in evidence work and the associated miscarriage of justice, the question arises again and again whether modern forensic science not only makes proper use of high-tech for the search, examination and evaluation of scientific evidence for legal purposes, but also guarantees quality and competence. Normative quality assurance, based on internationally recognized quality standards such as ISO 17025 (Testing) and ISO 17020 (Inspection), provides guidelines as to what must be defined to claim the quality label. A central aspect is the question of how it can be demonstrated that the methods and procedures used correspond to recognized best practice. The issue of what is considered a so-called standard practice is complex and goes beyond the question of what is usable for forensic purposes according to the current specialist literature. Not everything that is validated and documented according to the latest research and development deserves *a priori* the label <best practice>. In recent years, various international forensic organizations have addressed the issue of best practice standards (OSAC, ENFSI). It shows that this is about more than just the creation of pragmatic standard operating procedures for forensic examinations, but especially about their acceptance. With regard to the own forensic quality and competence assurance, i.e. the forensic daily business, it is ultimately all about the central aspect, how do I implement a defined best practice standard.



Prof Dr Mona Elgohary

Master degree and Medical Doctor degree in Forensic Medicine&Toxicology , Faculty of Medicine, Tanta University, Professor and consultant of forensic medicine , Faculty of medicine , Tanta University, Egypt

9.1 Biography

Owner and Director of Consultation Center of Forensic Medicine in Egypt

Professional career: Demonstrator in Forensic Medicine&Toxicology Department, Facuty of Medicine, Tanta University :1988, Assistant lecturer of Forensic Medicine&Toxicology Department, Facuty of Medicine, Tanta University : 1991, Lecturer of Forensic Medicine&Toxicology Department, Facuty of Medicine, Tanta University : 1995, Assistant professor of Forensic Medicine&Toxicology Department, Facuty of Medicine, Tanta University: 2000 , Professor of Forensic Medicine&Toxicology Department, Facuty of Medicine, Tanta University : 2005, Head of Forensic Medicine&Toxicology Department, Facuty of Medicine, Tanta University: from 2011 to 2017

Head of scientific ethical committee in faculty of medicine Tanta University.

Educational and Training Courses:

Worked with Indianapolis Marion County Forensic laboratory as a visiting scientist in forensic DNA analysis I999, Trained with Indianapolis Marion County Forensic laboratory as a visiting scientist in biological evidence packaging and storage I999, Attending Forensic training trace evidence laboratory from Cuyahoga County Coroner>s Office, Cleveland, Ohio , 2000, Has been given Honorary Forensic Scientist from Indianapolis Marion County Forensic services agency .One of the members in the Science International journal in Lahore.

Publications: Professor Mona>s many publications include :A Proposal for a Novel Scoring System for Triage of Acutely Poisoned Patients at Tanta University Poisoning Treating Center, Egypt , – Intravenous lipid emulsion as an adjuvant therapy of acute antipsychotic poisoning: a randomized controlled trial, – Medico–legal application of ubiquitin C–terminal hydrolase LI in mild and moderate head injured patients, Evaluation of the potential cardiotoxic effects in acute organophosphate toxicity as a prognostic factor , Evaluation of the patterns of injuries in road traffic accidents in great cairo, egypt, The use of auricular biometrics to identify age and sex in Egyptian population sample, Falling from height: an interesting unusual pattern of injuries MS ElGohary, El Elmada. Poisoning Severity Score and Glasgow Coma Scale as Predictors of The Severity of Acute Tramadol Poisoning and many more

Membership: Member of Egyptian association of forensic medicine, Member of International association of forensic sciences, Member of Egyptian association of united nations, and Member of National woman assembly in Egypt.

Projects: Principle investigator (PI) of the project of primary medicolegal reports.

9.2 Abstract

Myths and Misconceptions in forensic science.

Forensic science is a complex and fascinating field, and it plays a vital role in justice system. There are many myths and misconceptions about forensic science among not only among publics but also among forensic pathologists. In publics, some people believe that forensic science is nothing more than Hollywood magic. Pop culture portrayals of criminal investigations have helped fuel several misconceptions and myths about forensic science and the day-to-day work of these law enforcement specialists. One of the most common misconceptions about forensic science is that all forensic scientists work for law enforcement, however, the majority of them work in private laboratories. Forensic science is often associated with solving crimes, but that's not all it's used for. Forensic science is always accurate however it is not always 100% accurate, this is because many of the methods used are based on estimation and interpretation. Forensic scientists are always able to solve cases. However, the reality is that, there are certain cases where the evidence just isn't there to reach a definitive conclusion. Many people believe that forensic scientists work alone in a lab, and only work on murder cases, people believe that all forensic scientists have a college degree while a college degree, is not a requirement for the job. "Dry drowning," is one of the myths among forensic pathologists. However, it becomes not medically accepted diagnoses, and many organizations and lifesaving institutions around the world discourage the use of this term. Unfortunately, this term still slip past the editors of medical journals and is thus perpetuated. The terms are most pervasive in the nonmedical media, where drowning seems to be synonymous with death. The claim that cases classified as "dry-drowning" may conceal misdiagnosed body disposal or natural death in water is of great medicolegal concern and also deserves special consideration for surveillance, prevention, and insurance aspects. Perhaps it is appropriate that dry drowning term be eliminated from our vocabulary as possibly designating a nonentity.



Prof Dr Abeer Zayed

**Professor of Forensic Medicine & Clinical Toxicology Faculty of Medicine; Cairo University.
Head of the Forensic Medicine and Clinical Toxicology Department, Faculty of Medicine,
Nahda University NUB Banisuef, Egypt.**

10.1 Biography

Prof. Zayed is a member of the Egyptian Fellowship Council of Forensic Medicine and a member of the Scientific Referee Board for Academic Staff Promotion in the Supreme Council of Egyptian Universities. She is an active member in many national and international associations of Forensic Medicine as Arab Union of Forensic & Toxicology (AUFT), European Network of Social & Emotional Competence (ENSEC), Pan-Arab Forensic Doctors Society, Egyptian Society of Bio-Anthropological Sciences & the Egyptian Association for Forensic Medicine and Toxicology. She has a rich library of scientific publications in Forensic Medicine & Toxicology in the form of books, thesis and scientific research papers. She serves as a peer reviewer for many international organizations as European Scientific Journal & Dove Medical Press. Dr. Abeer acted for several years as the scientific coordinator of the international conference on Domestic Violence organized in Cairo as a conjoint work between Cairo University and Hamburg University. Prof. Zayed has a wide experience in the field of Medical Education. She is currently the head of multiple technical committees in the postgraduate sector, Faculty of Medicine, Cairo University; mainly the Curricula and Training committee, the Central Board of E-Learning, the Board of Postgraduate International Students & the committee of Medical Professional Certificates.

10.2 Abstract

Quality Evaluation of Expert Testimony in Malpractice Allegations

The malpractice crisis became a famous problem in the last years. It is often a subject of debate in medical legislation. In Egypt, physicians are subjected to the country's common laws that include; Penal Law, Civil Law and Code of Criminal procedures.

Getting sued is not an uncommon event for physicians. The longer the period of practice, the more the physician is exposed to malpractice allegations. Thus, the probability of getting sued increases with age. Yet, there is a wide variation in the frequency of liability claims between specialties.

In almost every malpractice lawsuit, expert testimony is a must and clinical experts in the appropriate speciality will be assigned to issue a report after getting access to the medical records and reports of the corresponding case. Their actual role is to analyse the technical dimensions of the case in order to help the forensic doctor to establish the final opinion about the case for the use of the court to conclude the presence or absence of liabilities.

Since the clinical expert testimony is a key element in different malpractice allegations, it is mandatory to improve the quality of the expert report by enhancing the surrounding policies and procedures including expert selection, disclosure, evaluation criteria and most importantly working through an approved template of checklist that ensures objectivity of the report.

Through this work, a standardised template was generated so as to fulfill the previous intended criteria. The template was designed to prove or exclude the four cornerstones of any malpractice case including details of the professional duty, standard of care, alleged damage and causal relation. We assume that making use of the proposed template would help forensic experts to carry on their responsibility in such a positive manner to secure both legal and social justice.



Dr. Johansen Oduor Nyayal

Chief Government Pathologist, Ministry of Health Nairobi Kenya ,
Acting Coroner General, Department of Justice, State Law Office, Kenya

II.I Biography

MBCHB University of Nairobi, 2000, Mmed Pathology, University of Nairobi 2007

LLB. University of Nairobi 2021, Diploma in Forensic Medicine, College of Medicine, South Africa, 2008, Diploma in Law (advocate training program) ongoing, Diploma in leadership, Strathmore Business School, Nairobi, Kenya, 2014, Trainings in human rights investigations, management of the dead during catastrophes, scene processing management and Disaster victim identification, among others in various institutions

Work: Ministry of Health Nairobi Kenya, as the Chief Government Pathologist, Acting Coroner General, Department of Justice, State Law Office, Kenya, Honorary lecture, University of Nairobi Kenya; Jomo Kenyatta University of Technology Kenya, Independent Medico Legal Services, a human right organisation: consulting for them, Homicide division, Directorate of criminal Investigations, National Police services– consulting for them, Involved in routine post mortem services, Expert witness in court of law, and Analysis of medicolegal reports and giving independent opinions

Membership of professional bodies: Kenya Association of Clinical Pathologists, African Society of Forensic Medicine (ASFM) (president emeritus), Association of Pathologists East Central and Southern Africa (APECSA), Member, Kenya Medical Association (KMA), Registered with the Kenya Medical and Dentists Practitioners Board, Alumni of Strathmore Business School and University of Nairobi.

Notable works involved in Founder member of African Society of forensic medicine after which I was president for 2 terms, Investigations of various high-profile cases of death in Kenya, Part of DVI African team, Lead in management of fatality disasters including the following; Nakumatt Supermarket fire: fire broke out in a supermarket known as Nakumatt within downtown, Nairobi City on 28th January 2009. 29 people died, Westgate mall terrorist attack, Nairobi in 21st September 2013. 68 killed. Mpeketoni, a region in Lamu, Kenya, terrorist attack, 16th June 2014, 48 killed Garissa: terrorist attack to university in 2nd April 2015. 148 students were killed. Done as DVI and autopsy. Dusit D2, A business complex in Nairobi, Kenya. Terrorist attack on 16th January 2019. 22 killed plus all the 5 terrorists Shakahola: ongoing, a case of religious extremist in which followers were urged to starve to death after which they were buried in an expansive land in a place called Shakahola within Kilifi County in Kenya. So far we have exhumed and performed autopsy on a total of 429 bodies.

Publications : Oduor J. Normocytic anaemia and associated diseases at Kenyatta National Hospital. Master of Medicine in Human Pathology thesis, University of Nairobi. (2008). Hassan Saidi; Johansen Oduor. Trauma deaths outside the hospital: uncovering the typology in Kenyan capital. Journal of forensic and legal medicine 2013; 20(6): 570–4 HIV associated Mortality in the era of antiretroviral therapy scale–Up (2015) Peter young, Johansen Oduor et al A 29–year–old female presenting with a fatal stroke due to embolism of Cardiac Myxomatous Neoplasm diagnosed at a Kenyan forensic autopsy service: a case report (2018) Edwin Walong, Johansen Oduor

II.2 Abstract

A 29 year Old Female Presenting with a Fatal stroke due to embolism of a cardiac myxomatous neoplasm diagnosed at a Kenyan forensic Autopsy Services

A case Study Background. Stroke is an uncommon cause of maternal mortality in Africa. While there are limited publications on strokes in pregnancy and puerperium in Africa, these are frequently presumably caused by hypertensive disorders of pregnancy. In rural and emerging urban areas of Africa, stroke could constitute 10% of all hospital admissions and a similar proportion of mortalities.

Cardiac myxomas are rare intracardiac neoplasms that frequently embolize resulting in cerebral infarcts (strokes). These appear to affect youthful women and may occur in the peripartum period. They are rare causes of maternal mortality and may present as sudden unexpected death. Because of this, their diagnosis may be made through forensic autopsies and may confound homicide investigations. These reports are rare in African literature and awareness is low. Because histopathology and keen systemic evaluation are rarely performed in African forensic autopsies, these diagnoses are frequently missed. This is coupled by incomplete postmortems and in some cases assigning cause of deaths without post mortem examination.

Case. We present a case of a 26-year-old female who had a sudden and unexpected death resulting from a stroke due to embolization of a cardiac myxoma. She had delivered a live newborn six weeks earlier. Prior to this, she had recurrent undiagnosed transient ischemic attacks. On the day of her death, she had an argument with her spouse, who left her in the bedroom after the altercation. One hour later, she was found unable to talk, move and with one sided weakness. She was then taken to hospital where she succumbed 12 hours later. Because of the history of the argument, the spouse was arrested, and a murder investigation commenced. The autopsy was performed 72 hours after her death, the main findings were tumor emboli to the cerebral arteries and an atrial myxoma on the left atrium of the heart. There was no evidence of external or internal trauma. The cause of death was attributed to the atrial myxoma and emboli. This case attracted media attention and a repeat autopsy ordered came to the same conclusion.

Conclusion: Embolization of cardiac tumours are a rare cause of maternal mortality. Their prevention may require increased surveillance and improved clinical workup for young person with risk factors for stroke. With increased index of suspicion, these should be sought in sudden deaths occurring among young people. While forensic pathologists in Africa rarely perform histopathology, detailed pathological evaluation in these circumstances are essential.



Prof Dr. Mohammed Madadin
MBBS, MD Imam Abdulrahman Bin Faisal University

12.1 Biography

Dr. Mohammed Saleh Madadin is a Professor of Forensic Medicine, Chairman of the Department of Pathology, Vice Dean for Academic Affairs at the College of Medicine at Imam Abdulrahman Bin Faisal University (Dammam, Saudi Arabia) and chair of the Forensic Medicine Examination Council at Saudi Commission for Health Specialties. He has a keen interest in forensic medicine, medical education, research, and the development of medical practice in Saudi Arabia and the Middle East. He has been assigned different academic and scientific tasks in medical journals, scientific conferences, committees, and councils, both nationally and internationally.

12.2 Abstract

Forensic Neuropathology: standards, current and future practice

The primary job of forensic physician/pathologist is to determine cause and mechanism of death. Significant number of cases encountered in forensic settings involve central and peripheral nervous system. Neuropathology implies a study of the neurons, neuroglia, connective tissues, blood vessels, meninges, and peripheral nerves react toward disease and traumatic causes. In many injuries or sudden death cases that encountered in forensic practice neither the clinical-investigation techniques like CT, nor the routine post-mortem forensic pathological examination, give any results with discovering CNS pathology. Hence, forensic-neuropathological examination has been the only way to establish the diagnosis of the brain injury that caused death. Forensic pathologist should be equipped with basics knowledge of forensic neuropathology. In addition, forensic neuropathologist is essential part in some medico-legal cases. Forensic Neuropathology has been practiced for many years in developed countries. Co-working of forensic pathologist and neuropathologist is essential for good practice in modern forensic practice. The aim of this lecture is to overview current practice and importance of neuropathology in forensic practice.



Dr Sahar A. Tawfick

MD Doctors Degree in Histopathology Msch Master Degree in Histopathology Diploma in Health care Quality
Management Egyptian fellowship in Health care management
Histopathology consultant Ras Al Khaimah forensic laboratories, UAE

I3.1 Biography

Dr. Tawfick is currently a histopathology consultant in Ras Al Khaimah forensic laboratories, UAE. She has twenty three years of experience as a forensic histopathologist. She started as a histopathologist in the Egyptian forensic medicine authority, which receives pathology cases from all of Egypt (a 110 million population). The large number and variety of cases added to her knowledge in the field, and has made her gain interest in the autopsy of the heart especially in cases of sudden unexpected death and medical malpractice involving cardiac surgeries or other cardiac interventions.

Dr. Tawficks researches involved immunohistochemistry studies on postmortem detection of early infarction and detection of prostatic tumors. She has performed workshops on hospital management, quality requirements for forensic facilities, postmortem dissection and macroscopic examination of organs. She has also lectured pathologists and forensic medicine doctors on bioterrorism, dissection of hearts with stents, Postmortem examination of cardiac interventions and ventilator associated lung injury.

Dr. Sahar has a diploma in health care quality management and holds the Egyptian fellowship for management of Healthcare facilities. Accordingly in addition to her work in forensic pathology she has specialized in quality of forensic services, she was part of the team that Assisted in preparing the Egyptian forensic medicine authority DNA laboratory for acquiring ISO I7025 certificate in 2019, and currently is the quality representative of the RAK Forensic laboratories, which during 2022 has achieved accreditation in Forensic autopsy and pathology, clinical forensic medicine, Woman and child forensic clinic, fire investigation unit, Forgery and counterfeit Unit in UAE documents, International Documents and physical documents. In addition she has consulted the RAK Police Crime Scene Section in acquiring accreditation in 2023. Now she has become involved in different quality activities including improvement projects

Dr. Sahar is a member of the Egyptian society of Pathologists and the Arab union of forensic and toxicology.

13.2 Abstract

Sudden death due to anomalous coronary artery

In forensic practice the death of a young adult without any prior disease or complain arouses multiple questions. In older age groups the primary suspected cause is atherosclerosis of the coronary arteries and sudden vascular occlusion. Yet, this is generally not the cause in younger age groups.

When sudden death occurs in adolescents and young adults, the negative screening of alcohol, narcotics and poisons and absence of physical injuries or macroscopic causes of death makes the diagnosis difficult. Although a small percentage of cases cannot be explained and shall be presumed to be due to arrhythmia, yet, this effects the credibility of the forensic medical examination as there still remains doubt that the forensic medicine doctor missed information that may have led to revealing cause of death.

Meticulous macroscopic examination and microscopic examination may reveal undiagnosed heart conditions such as genetic heart disease, vasculitis or coronary anomalies. These may cause sudden death without prior medical complaints and in an apparently healthy condition.

In this paper I will discuss a case of sudden death in young adult due to myocardial bridging. Coronary anomalies in particular require meticulous dissection of the heart and understanding of the normal variations of the coronary pathways and knowledge of which can cause sudden death.

First Day 30/10/2023

HALL (B)

Talk

10:00–10:20 AM

**DR. Mohammed Ashraf Tahir
Director General, Punjab Forensic Science Agency,
Lahore Pakistan**

**Role of forensic science in solving mystery of minor's sexual
assaults, murders and identity**

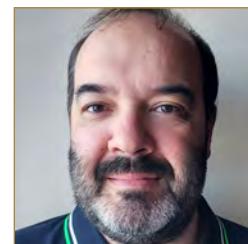


Talk

10:20–10:40 AM

**Dr Alain Stevanovitch
Head of mitochondrial DNA team, forensic laboratory of
Marseille Service National de Pice Scientifique SNPS**

Mitochondrial DNA: A power tool from a powerhouse



Talk

10:40–11:00 AM

**Asst Prof Sarah Abdel Mohsen Khater Assistant
Professor of Forensic medicine and Clinical toxicology
Faculty of Medicine, Misr University for Science and
Technology**

**Estimation of early PM Interval from long Noncoding
RNAGene Expression in the Incised Cutaneous Wound:
An Experimental Study**



Talk

II:00–II:20 AM

Syed Arif Sulthan Jaffer Ali
Director – Technical Sales at Eppendorf Middle East & Africa FZ LLC

Forensic genomics: Automation Technology in Sample preparation for enhanced efficiency and Accuracy



Talk

II:20–II:40AM

Ms Kumkum Singh Senior Research Fellow in the Department of Forensic Medicine and Toxicology at AIIMS, New Delhi, India

Recent Developments in issues of Identification vis-a-vis use of DNA technology in India– An Update



Talk

II:40–I2:00PM

Dr Mahmoud Hassanin Abd El Megeed Assistant lecturer of forensic medicine at Armed forces college of medicine (AFCM)

Impact of different fabric types and different washing conditions on DNA recovery from blood and seminal stains



DISCUSSION I2:00 – I2:I0 PM

COFFEE BREAK

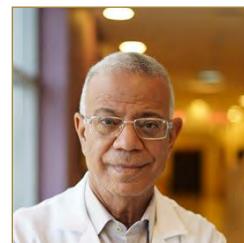


Talk

12:15–12:35 PM

Prof Dr Talaat Matar Professor of Psychiatry , RAK, medical and health science university Consultant psychiatrist, RAK hospital , Ras Al Khaimah ,UAE

Punishment or treatment



Talk

12:35–12:55PM

Prof Dr khezzane Djaber Professor, researcher in occupational medicine, at the Annaba Faculty of Medicine and the Annaba University Hospital (Algeria).

Violence and Mental Suffering Among Working Women in a University Hospital in Eastern Algeria



Talk

12:55–13:15PM

Assistant Prof Dr Mehreen Fatima Assistant Professor in department of Forensic Medicine at Dow University of Health Sciences.

Prevalence of Suicidal ideation and its association with type D personality among medical students in Karachi



Talk

13:15–13:35PM

Dr. Wael M. Fathy Forensic Chemistry Consultant, Center of Forensic and Digital Science, Judicial Department, Abu Dhabi, UAE.

Novel psychoactive substances (NPS)–Recent Trend



Talk

13:35–13:55PM

**Saleh Maihoul Hadma AL-mantfeji Forensic Chemist
(Chemistry & Toxicology)Forensic laboratory,
Ras Al-Kamiah police**

Pregabalin addiction



DISCUSSION 15:15 – 15:25 PM

COFFEE BREAK

Talk

14:15–14:35PM

**Prof Dr Ashraf Abdelkader Kandil Assistant Professor of
Criminal Investigation Sharjah Police Sciences Academy**

The role of Artificial Intelligence in combating cybercrime in the
UAE legislation.



Talk

12:55–13:15PM

**Adeel Khan
RAK Police Forensic Laboratories , UAE
Digital Forensic**



Talk

13:15–13:35PM

**Ms Moza Kudonu Consultant at FTI Consulting `s
Technology segmen**

**The Intersection of Artificial Intelligence: Impact on Data
Privacy and Cybercrime**



DISCUSSION 15:15 – 15:25 PM

LUNCH





Dr. Mohammed Ashraf Tahir

Doctor of Philosophy in Forensic Immunology. Royal College, Glasgow, Scotland, U.K. **Master of Science in Food Science and Microbiology (1976).** **Master of Science with honors in Food Chemistry and Biochemistry (1973).**
Director General, Punjab Forensic Science Agency, Lahore Pakistan

I.I Biography

Director General, Punjab Forensic Science Agency, Lahore – Pakistan

After completion of Ph.D. from University of Strathclyde, Royal College, Glasgow, he joined crime laboratory in Youngstown Police Department, Ohio in 1977, then he moved to Illinois State Police Forensic Sciences and served there for 15 years and retired. He was then asked to start Forensic DNA Laboratory Setup in Indianapolis, where he spent 15 years and then got retirement.

After retirement, in 2004, he established his own private Forensic DNA testing laboratory named Strand Analytical Laboratory. During that time he was contacted by Ohio State to setup DNA forensic laboratory in Cuyahoga County Coroner Office. He took over this forensic laboratory as executive director.

Dr. Tahir served on FBI Directors DNA advisor Board to make Q/A standards for forensic DNA analysis.

He resigned from Forensic Laboratory, Cleveland and upon request from Government of the Punjab, establish Punjab Forensic Science Agency in 2008, currently he is working as Director General of this laboratory since 2011. Government of the Punjab has entrusted him an additional charge of Director General, Punjab Agriculture Food and Drug Authority for its establishment which is near to completion.

Following are some of his high profile cases: Mike Tyson vs. State of Indiana (World Heavy Weight Champion), Gary Dotson vs. State of Illinois, Sam Sheppard vs. State of Ohio (Fugitive Movie from Hollywood), and Harbold vs. State of Illinois. (Case of Century).

I.2 Abstract

Role of Forensic Science in Solving the Mystery of Minor's Sexual Assaults, Murders and Identity

In a period of just fifteen weeks, five minor boys from 8 – 12 years age group went missing from Chunian – Pakistan. Law enforcement agencies were unable to find any clue about these incidents. Abduction of the last boy was reported on September 16, 2019, after which public protests broke out. Dead body of the last victim was found from an abandoned place and Crime Scene Investigation team of Punjab Forensic Science Agency was contacted by police to visit the crime scene.

The crime scene investigation team was able to collect shoe impressions, suspected clothing of victim, nail and buccal swabs of the victim and 126 suspected human bones including skulls from the crime scene. Reference samples of parents claiming their missing children were also collected.

Clothing of an earlier missing boy bearing suspected blood stains recovered by police was also submitted for DNA analysis. Stains of seminal material and blood were located on clothing of both victims and same un-known male DNA profile was obtained from both. The suspect was identified with the help of DNA analysis from total 1649 possible suspects arrested by police; the suspected shoe recovered from the identified suspect was also found match with shoe impressions recovered from the crime scene. All bone samples were processed for DNA profiling and identity of three missing boys was established by performing parentage analysis. To solve this puzzle, all together 1800 samples were processed for DNA profiling in just 14 days.

This case study is a fantastic example of application of forensic science to solve the mystery of minor's blind sexual assaults and murders. In the absence of forensic science using conventional investigation processes, it was never possible to identify the actual suspect out of 1649 suspects and establishing identity of recovered human remains would have remain a mystery.



Dr Alain Stevanovitch

Phd working on ancient DNA

Head of mitochondrial DNA team, forensic laboratory of Marseille Service National de Pice Scientifique SNPS

2.1 Biography

Dr Alain holds a Phd working on ancient DNA. The thesis included study of mitochondrial DNA on 12 000 years bones old population from Taforalt (Morroco). Dr Alain also works on the current population from Egypt and Italy. He has been working in the were he developped mitochondrial DNA and bones analysis in forensic context. He is now DNA expert for more than 20 years and head of mitochondrial DNA team, which is referent for all the SNPS for that kind of analysis. They also focus of critical bones analysis, including cold cases and soldier identification from past wars (including WWI, WW2 or even Napoleonic Wars).

2.2 Abstract

Mitochondrial DNA : A power tool from a powerhouse

Mitochondria is the powerhouse of the cell. The mitochondrial DNA (mtDNA) is a valuable alternative in forensic when nuclear DNA methods fail. New technologies like Massive Parallel Sequencing (MPS) allow whole mitochondrial genome sequencing and bring a better discrimination power. We present here some examples how mtDNA could help in forensic caseworks and for human identification using maternal lineage, including unidentified bodies.



Asst. Prof.Dr. Sarah Abdel Mohsen Khater

Assistant Professor of Forensic medicine and Clinical toxicology Faculty of Medicine, Misr University for Science and Technology

3.1 Biography

Working at Faculty of Medicine, MUST since the academic year 2004– 2005. Awarded Assistant Professor Degree at Faculty of Medicine, Misr University for Science and Technology 2021–2022. Training of trainers (TOT) by completing the Training Course (International Training of Trainers) with grade Excellent 2017. Participating in 2021 Clinical Teaching and Assessment in Medical Education. Participating in the Medical Education Program; a joint program between Military Medical Academy, Egyptian Knowledge Bank and Ministry of higher Education, 2019. Training at the poison control centre at Ain Shams University 2012–2013.

Awards and Certificates: Award certificate for successful Completed and participated on Training of Trainers Workshop in Clinical Management of Victims/Survivors of Gender Based Violence, 2016. From the Regional Center for Training in Family Planning and Reproductive Health OB/GYN Hospital Ain Shams University, Cairo, Egypt. Award certificate for Attending and participating in Workshop of "How to create your own E-learning Unit". Held on E– learning Unit of Faculty of Oral and Dental Medicine, Cairo University 2016.

Appreciation certificate for Attending and participating in the workshop of the Development of the Bachelor degree programme of Medicine and Surgery held at Helwan University under the auspices of the Supreme Council of Universities (medical sector) with the participation of the faculties of medicine at Helwan University, University of 6 October and The University of Misr University for Science and Technology 2016.

Memberships: General Medical Council, Full registration with Egyptian Medical Syndicate. Arab Union of Forensic and Toxicology – AUFT. International academy of Legal Medicine – IALM.

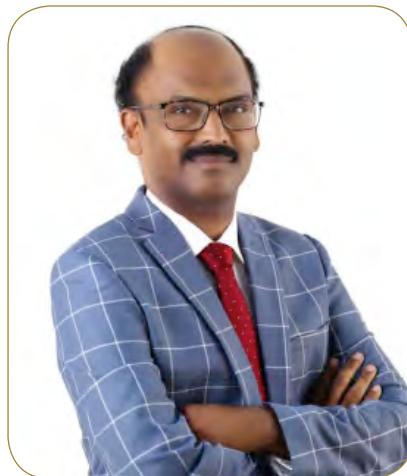
3.2 Abstract

Estimation of Early Postmortem Interval From Long Noncoding RNA Gene Expression in the incised Cutaneous Wound: An Experimental Study

The assessment of alteration of postmortem RNA expression has forensic significance in estimating postmortem interval. To evaluate wound healing progression and the effect of different postmortem intervals, histopathological changes, immunohistochemical matrix metalloproteinase – 9 (MMP–9) expression, and long noncoding fatty acid oxidation (lncFAO), RNA expression was assessed in the incised cutaneous wound model.

A full-thickness cutaneous wound was inflicted on 75 rats. All 15 rats were sacrificed at different post-infliction intervals (0,2,4,8,10 days), and the cutaneous wounds ($n=5$) were excised at different postmortem intervals (0,5,24 h after euthanasia). The maximal inflammatory healing stage was detected at day 4 post-infliction, while near complete healing, thick mature collagen deposition was detected at day 10 post-infliction.

LncFAO expression was significantly over-expressed with increasing wound age. MMP–9 was detectable on injury day with continuous elevation until 8 days post-wounding, which later decreased. Although histopathological and immunohistochemical examinations within 24 h postmortem did not show any remarkable changes, lncFAO RNA expression showed a significant negative correlation with hours passed since death. The combined use of histopathological changes, immunohistochemical expression of MMP–9, and molecular expression of lncFAO could be appropriate in wound dating verification. Among these factors, lncFAO could be a reliable indicator in postmortem interval estimation.



Syed Arif Sulthan Jaffer Ali

Director – Technical Sales at Eppendorf Middle East & Africa FZ LLC

4.1 Biography

Work experience

Since April 2023	Director (Technical Sales)	Eppendorf MEA, Dubai
Jan 2021 – March 2023	Technical Sales & Application Specialist	Eppendorf MEA, Dubai (Automation)
Jan 2019 – Dec 2020	Regional Marketing Manager	Eppendorf India Limited, Chennai, India (Automation, Detection, PCR & Shaker – India, Middle East & Africa)
Jan '18 – Dec '19	Marketing Manager	Eppendorf India Limited, Chennai, India
Jan '12 – Dec '17	Product Manager	Eppendorf India Limited, Chennai, India Detection & PCR (Automation & Imaging products – Vilber Lourmat, France since March 14 Jan '09 – Dec II Sr.Application Specialist Eppendorf India Limited, Chennai, India
Apr '07 – Aug '08	Senior Scientist	Connexios Life Sciences Pvt. Ltd., Bangalore, India (Drug screening)
July '06 – Mar '07	Scientist,	Connexios Life Sciences Pvt. Ltd., Bangalore, India (Experimental Biology)
June '06 – July '06	Consultant	Connexios Life Sciences Pvt. Ltd., Bangalore, India
May '05 – Dec '05	Research Associate	Piramal Life Sciences India Ltd., Mumbai, India (Vaccine development)
June '02 – Apr '05	Junior Research fellow	Anna University, Chennai, India Centre for Biotechnology
Apr '01 – Apr '02	Project fellow	Central Electrochemical Research Institute (CSIR), Bio-corrosion division Karaikudi, India

Educational background

2017 Certification (Executive Business Management Program); Indo-German Chamber of Commerce, Chennai, India.

4.2 Abstract

Forensic genomics: Automation Technology in Sample preparation for enhanced efficiency and Accuracy

Technological advancements using DNA analysis in forensic investigations has attained greater dynamics. This has allowed to pursue several, a few to mention such as body fluid-based identification using DNA/RNA profiling, identity/inheritance matching by VNTR analysis, Bio-geographic ancestry or epigenetic markers by DNA phenotyping, haplotyping, next-generation sequencing, etc. This talk covers sample preparation workflow especially nucleic acids, by manual and automated approaches. Feature-benefit from instruments, forensic grade consumables, storage solutions including biomolecule interactions with plastics, etc., that are relevant in the workflow will be covered.



Ms Kumkum Singh

Senior Research Fellow in the Department of Forensic Medicine and Toxicology at AIIMS, New Delhi, India

5.1 Biography

Kumkum Singh completed her B.Sc. in Medical Technology & M.Sc. in Forensic Science and is currently working as a Senior Research Fellow in the Department of Forensic Medicine and Toxicology at AIIMS, New Delhi, India. She is pursuing research on Epidemiological Investigation of suicidal deaths during COVID-19 pandemic in south and south-east districts of Delhi, India where she is also undertaking various psychological autopsy procedures from relatives of deceased. Earlier, she has been actively involved in research projects on Bioinformatics Identification and In vitro Evaluation of Single Nucleotide Polymorphism TPH1, TPH2, and Serotonin Transporter (Candidate Gene) with Completed Suicide in the Indian Population & High-risk Factors in COVID-19 Patients at AIIMS, New Delhi. She has published papers on topics like A digital approach of national identity – Aadhar card; future aspects in crime investigation & nation security with corrective measures, A computerized approach towards centralization of National identity and its aspect in forensic practice – Aadhar Card and Bioterrorism – An assessment of insects acquaints biological weapons against humanitarian & presented poster at INPALMS Conference held at Colombo, Sri Lanka during 13–16 Dec. 2022.

5.2 Abstract

Recent Developments in issues of identification vis-a-vis use of DNA technology in India– An Update

Every year in India around 50000 unknown dead bodies are found. Invariably there occur various types of mass disasters too. The identification of deceased in such situation remains a challenge to various agencies. In addition, thousands of heinous crimes occur all over the country where question of identification is required. All these call for use of DNA analysis at different levels of investigation. With the introduction of DNA technology during last two decades, its use in various crime solving issues pertaining to identification has Increased massively. Simultaneously chances of misusing this technology for various reasons also have been increased. To regulate all these issues on 8 July 2019, The DNA Technology (Use and Application) Regulation Bill, 2019 was introduced in Indian parliament. Now after introduction of the Criminal Procedure (Identification) Act, 2022 things have changed a lot.

Primary aim of the act was to set up DNA data banks and DNA laboratories for testing and storing DNA profiles and its use for case resolution in crimes (primarily sexual assault). The Bill also provided for the creation of databases for storing of DNA information collected from convicts and accused

This Bill has resulted into various issues of privacy protection, ethical research promotion, improved forensic practices, mitigation of genetic discrimination, and increased public confidence in DNA technology. Modern technology must be included in the criminal justice system, but this must not come at the price of violating fundamental rights, especially the Right to Privacy.

India has finally withdrawn the DNA Bill, 2019 on 24 July 2023. The relevant sections have been included into the Criminal Procedure (Identification) Act which provides a balance between the advantages of DNA technology and also takes care of privacy issues. The paper will provide a deep insight into various aspects of related developments in India.



Dr Mahmoud Hassanin AbdElMegeed

Assistant lecturer of forensic medicine at Armed forces college of medicine (AFCM)

6.1 Biography

Dr. Mahmoud Hassanin is an alumnus of Egypt's Armed Forces College of Medicine's inaugural class. Dr. Mahmoud is an assistant lecturer in forensic pathology, having completed his MSc in the field. Dr. Mahmoud is a highly qualified forensic pathologist with more than three years of expertise in forensic imaging, anthropology, odontology, pathology, photography, and counterfeiting. Dr. Mahmoud received in-depth training in forensic pathology at various sites (the Egyptian Ministry of Defense, the Egyptian Ministry of Justice, Ramses Forensic Medical District, and the Zeinhom National Morgue of Egypt). Dr. Mahmoud has been investigating the impact of forensic fabric types and different washing conditions on DNA recovery from blood and seminal stains. Future research endeavors will mostly concentrate on forensic genetics.

6.2 Abstract

Human genetic variation analysis has been a major force in the development of forensic genetics.

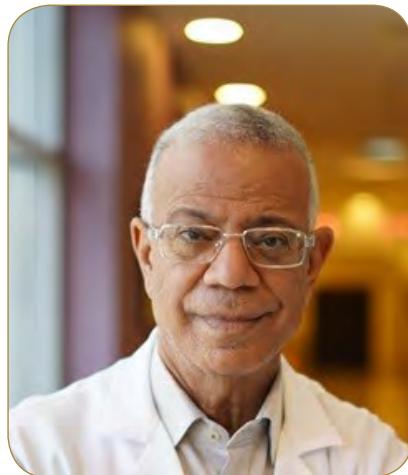
The identification of biological materials is at the forefront of the many fields that make up forensic genetics, so the aim of this study is to investigate the effect of different fabrics and washing at different temperatures on DNA persistence in blood and seminal stains.

Blood and semen samples were collected from Egyptian volunteers after they gave their written informed consent. Thirty blood-stained fabrics (15 on cotton and 15 on polyester) and thirty semen-stained fabrics (15 on cotton and 15 on polyester) were prepared. Each category was subdivided into

3 groups according to the washing conditions as follows: first group: the control group were fabrics left without washing, second group: fabrics were washed at 30 C with water and detergent, and third group: fabrics were washed at 60 C with water and detergent.

There was a decrease in the extracted DNA concentration in both the washing at 30 C and washing at 60 C groups compared to the control group. The concentration of the extracted blood and semen DNA from cotton fabrics showed statistically significant higher mean values compared to that extracted from polyester fabrics in most groups.

It was proven that DNA from blood and semen stains could still be detected on different fabrics after washing with detergent at different temperature



Prof Dr Talaat Matar

M.D .PHD in psychiatry ,Cairo University ,1997

Professor of Psychiatry , RAK, medical and health science university Consultant psychiatrist, RAK hospital , Ras Al Khaimah ,UAE

7.1 Biography

MBChB ,Tanta University ,1977

Master Degree in Neuropsychiatry ,Cairo university 1983

M.D .PHD in psychiatry ,Cairo University ,1997

Member of the editorial board of world journal of psychiatry(the Arabic version)

Member of the world psychiatric association

Translated the text book: "Cognitive Psychotherapy, Basic and Beyond"

Translated the book" the Power of Emotions"

Translated the Book "Beck solution for Diet" of Judith Beck

Author of a book in philosophy " Thus Spoke the Christ "

Member in editorial board of the Arabic version of (Journal of world Psychiatry)

Member in the editorial board of the journal (Arabic and world literature)

Author of a book " understanding psychiatry for medical students" (in press)

Has many publications in international and regional journals

More than 150 presentations in different national and international conferences

Participated in the field studies of ICD-10 ,ICD-II, and DSM-5.

7.2 Abstract

Punishment or treatment

Mental illness can significantly impact a person's judgment, behavior, and ability to understand the consequences of their actions. In many cases, individuals with mental health disorders require appropriate diagnosis, treatment, and support to address the underlying issues contributing to their criminal behavior. By providing access to mental health services, these individuals may have a greater chance of rehabilitation and reintegrating into society.

Punishment, on the other hand, is typically associated with retribution and deterrence. While punishment can serve as a form of accountability, it may not adequately address the underlying factors that contribute to criminal behavior in mentally ill individuals. Moreover, punishing someone solely for their mental illness can be seen as unfair and inhumane.

This presentation will address the different views regarding the mentally ill offenders, and the effectiveness of punishments versus rehabilitation.



8– Prof Dr Khezzane Djaber

Professor, researcher in occupational medicine, at the Annaba Faculty of Medicine and the Annaba University Hospital (Algeria).

8.1 Biography

Pr khezzane Djaber, professor, researcher in occupational medicine, at the Annaba Faculty of Medicine and the Annaba University Hospital (Algeria). trainer doctor approved by WHO Africa and the Algerian Ministry of Health. responsible for the medical and environmental surveillance of workers in various sectors of activity.

8.2 Abstract

Violence and Mental Suffering Among Working Women in a University Hospital in Eastern Algeria

Insecurity within hospital structures has become a concerning and escalating phenomenon with significant implications for the staff's mental health. The objectives of this study, conducted among 414 women, of whom 75.4% were victims of external violence, were to quantify the degree of work-related mental suffering in the studied population, estimate its prevalence among women who are victims of violence, and assess psychosocial risk factors.

We used the Goldberg General Health Questionnaire (GHQ) to achieve these objectives. It is a self-assessment questionnaire that evaluates current or recent psychopathological disorders. The version used was the 12-item GHQ adapted to the professional context (GHQW) and validated since 2011 by Lessage et al. The scoring system used was 0–0–1–1. The sum of the scores allows the calculation of a global score, which indicates the presence of psychological distress when it exceeds 2.

The cross-sectional epidemiological survey involved 160 medical staff (38.65%), 126 paramedical staff (30.43%), 76 technical and service staff (18.35%), and 52 administrative staff (12.56%), constituting a representative sample of the hospital personnel.

It was observed that mental suffering affects 52% of the studied population and is significantly more pronounced among women who are victims of external violence (55.77%) than non-victim women (40.2%). This distress affects 56% of women who are victims of verbal violence and 60% of victims of physical violence. It is more prevalent among emergency department personnel (60.4%) and shift workers (63.15%). Moreover, the mental suffering factors identified by GHQ12 and significantly more pronounced among victims of external violence are the feeling of constantly being under pressure, the difficulty in overcoming work-related challenges, and the sense of worthlessness.

Based on these results, we can conclude that work is a source of mental suffering in our population and that external violence plays a role in this psychological distress.



9– Assistant Prof Dr Mehreen Fatima

Assistant Professor in department of Forensic Medicine at Dow University of Health Sciences.

9.1 Biography

Dr Mehreen Fatima is a graduate of Dow Medical College. She has completed her Diploma in Medical Jurisprudence (DMJ) from Dow University of Health Sciences, Karachi, in 2014, and her Mphil in Pathology from Dadabhoj institute of higher education in 2021. She is currently working as Assistant Professor in department of Forensic Medicine at Dow University of Health Sciences. She is actively involved in undergraduate and postgraduate teaching of Forensic Medicine since 2009, using traditional teaching pedagogies like lectures, tutorials along with integration of new techniques like case based learning and flip class models. She is also involved in research mentoring of students and is responsible for professional development of research trainees by providing guidance, training and support to execute a research project.

Dr Mehreen Fatima shows keen interest in research with 16 publications in national and International journals. Her main area of interest is Forensic psychiatry. She believes that research in this domain may significantly contribute to the world of criminal justice system.

9.2 Abstract

Prevalence of Suicidal ideation and its association with type D personality among medical students in Karachi.

Suicide is the second highest cause of death for youth worldwide. Among the young, medical students frequently report attempting suicide.

Most often, suicidal ideation precedes suicide. Suicidal ideation is a broad term that incorporates feelings of compulsions, obsessions, planning, and thoughts regarding death and suicide. Many studies have suggested a possible association of Type D (distressed) personality with suicidal ideation. Hence, our study aims to identify the possible association of type D personality and suicidal ideation among undergraduate medical students who are at a greater risk of developing suicidal ideation.

A cross sectional study was conducted on 192 undergraduate medical students of Dow University of health sciences, Karachi selected by convenient sampling. Participants were asked to fill validated questionnaires measuring suicide ideation (using BSSI: Beck scale of suicidal ideation) and type D personality (using the type D personality scale-I4, i.e. DS-I4). The scores from individual questionnaires were statistically analyzed using SPSS, Version 20. Categorical variables were assessed using chi-square.

Out of total 198 participants, 107 (54%) were males and 91 (46%) were females. The mean BSSI score was found to be 7.95 ± 6.953 with the minimum score of 0 and maximum score of 36. The mean DS-I4 score was found as mean negative affectivity to be 13.34 ± 6.112 , while mean social inhibition to be 15.04 ± 4.605 . When the association between type D personality and development of suicidal ideation was assessed, a strong association was found between social inhibition and suicidal ideation among the participants (P -value =0.005)

In medical students, social inhibition may be a strong predictor of suicidal thoughts. In order to provide assistance in the form of therapeutic and preventative programs, this aspect must be evaluated and researched.



10– Dr. Wael M. Fathy

Post–Doctoral Fellowship Texas Southern University, School of Public Affair, Forensic Department, Houston, Texas, United States of America, PhD Biochemistry
Forensic Chemistry Consultant, Center of Forensic and Digital Science, Judicial Department, Abu Dhabi, UAE.

10.1 Biography

Dr. Wael M. Fathy, Forensic Chemistry Consultant, Center of Forensic and Digital Science, Judicial Department, Abu Dhabi, UAE.

Post–Doctoral Fellowship Texas Southern University, School of Public Affair, Forensic Department, Houston, Texas, United States of America, Ph.D. Biochemistry – Faculty of Science –University of Cairo 2009. Master Biochemistry – Faculty of Science– University of Cairo 2004.

Forensic Toxicologist Technical Supervisor in Forensic and Toxicology Laboratory, Forensic Medicine Authority Cairo – Egypt. Work as Ass. Professor in Forensic and Toxicology Department, Faculty of Medicine – Beni Suef University–Egypt, and in University of Modern Science, School of Biotechnology, forensic department, Dubai, UAE. Member of the International Association of Forensic Toxicologists (TIAFT). General Secretary of the International Association of Law and Forensic Science (IALFS).

Training in the Institute of Legal Medicine and Forensic Science CHARITE in Berlin– Germany 2013, in the field of (a) Qualitative and Quantitative drug analysis. And experiences in the detection and estimation of pesticide residues in biological samples, at the Agricultural Research Center, Pesticide Central Laboratory.

Sharing with the Egyptian forensic team in extracting the human remains and the airplane debris from the Mediterranean Sea with Deep Ocean Search Ltd. Company of the crashed Egyptian airplane (2016).

Has a good experience in (laboratory accreditation and quality assurance) (General Requirements for the competence of Testing & Calibration in Forensic Laboratories according to (ISO /IEC 17025:2017),

Appear before the courts for an opinion and discussion of reports submitted in criminal cases.

Dr. Wael Fathy has a lot of publications in the field of forensic chemistry and biochemistry.

Two years of experience in the field of bio–analysis and toxicology laboratory for analysis of pesticides Central Agricultural Research Center – Section of toxic pesticides and aquatic mammal

Twenty–five years of experience in the field of forensic chemistry, laboratory accreditation and quality assurance in Egypt and UAE.

10.2 Abstract

The Relationship between Agouti Related-Protein (AgRP) and Leptin in methamphetamine abuse

Leptin is an adipocyte-derived hormone that is secreted in correlation with total body lipid stores. Cannabinoids components of cannabis are known to exert behavioral and psychotropic effects. Agouti is a 131 amino acid peptide made by dermal follicular cells that acts as a specific high affinity antagonist of the MC1-R. Agouti related protein (AgRP). Aim: Try to find out, the food intake mechanism, of subjects under investigation, who are methamphetamine abuse, by study the relationship between the most two popular hormones controlling food intake (leptin hormone, and agouti related protein hormone), comparing with healthy subjects.

Four groups every group: as the following:

Group I (G1) consisting of ten 10 men with positive methamphetamine in their urine with normal weight, and BMI ranged from (18–20) kg/m². Group II (GII) consisting of ten 10 men with positive methamphetamine in their urine with obese weight, and BMI ranged from (30–35) kg/m².

Group III (GIII): consisting of ten 10 control healthy males with normal weight and BMI ranged from (18–20) kg/m², as volunteers and their urines are free of drugs.

Group IV (GIV): consisting of ten 10 control healthy males with obese weight and BMI ranged from (30–35) kg/m², as volunteers and their urines are free of drugs.

All urine samples will qualitative analysis using Gas Chromatography-Mass spectrometry (Agilent 6080N-capillary column 30m- 1μ diameter) collected from forensic medicin institute chemistry lab. Calro, Egypt. Age will be matched; diabetic subjects were excluded. Plasma leptin concentration was measured by quantitative radio immunoassay (RIA) using a kit supplied from diagnostic systems Laboratories (DSL) Inc. (445 medical center BLVB. WEBSTEER TX 77598 USA. Human plasma AgRP hormone was quantitatively measured by using a kit supplied from Quantikine R&D systems INC. (614 McKinley Palace Minneapolis, MN 55413, USA.).

The relationship between plasma leptin concentrations and plasma AgRP concentrations affected by methamphetamine abuse, and that may change the mechanism of food intake.



Saleh Maihoul Hadma AL-mantfeji

Ph D in Chemistry

Forensic Chemist (Chemistry & Toxicology) Forensic laboratory, Ras Al-Kamiah police.

II.I Biography

EDUCATION AND QUALIFICATIONS

2020 Ph D in Chemistry, college of Science, Sudan University of Science & Technology , Sudan, 2014 Master in criminal evidence , faculty of graduate studies and scientific researches, The National Ribat University, Sudan. 2011 Certificate of foundation training in forensic toxicology, The general administration of forensic evidence and criminal science. 1998 B.Sc. in Chemistry, College of Science, Al-Mustansiria University, Iraq.

EMPLOYMENT RECORD

May 2001 – To Date Forensics junior Expert, Forensic laboratory, Ras Al-Kamiah police.

PROJECTS & SPECIAL TASKS UNDERTAKEN

Liaising officer for forensic toxicology in ministry of home affairs, UAE, 2012.

PROFESSIONAL COURSES AND TRAINING, July 202 Training in MultiSTAT Operations , SASC, DUBAI, April 2021
Dedicated training course: ISO Quantum Discovery MAX LC/MS/MS basic operation training.

II.2 Abstract

Pregabalin addiction

Addiction: It is a compulsive desire to continue using a narcotic substance or obtain it by any means, with a tendency to increase the dose taken. Which causes psychological and physical dependence and a harmful effect on the individual and society.

Pregabalin is a medication used to treat epilepsy, neuropathic pain, anxiety, and other conditions. It works by binding to certain chemicals in the brain that are involved in transmitting pain signals.

While pregabalin is generally safe and effective, there is a risk of addiction.

Since Pregabalin is one of the drugs controlled in the United Arab Emirates and listed on the drug schedules. This paper includes a brief explanation of the method adopted for detection in forensic laboratories in Ras Al Khaimah.

The common method for detection the presence of Pregabalin in urine, which include: Screening test, Confirmatory examination using the GCMS including: Sample preparation and extraction process, GCMS method, and the result.



I2– Professor Ashraf Kandil

Ph.D. in Criminal Law

Assistant Professor of Criminal Investigation Sharjah Police Sciences Academy

I2.I Biography

Major General, former Egyptian Assistant Minister of Interior for the year 2019.

Graduated from the Police College in 1983 and holds a Ph.D. from the Department of Criminal Law, Faculty of Law, Alexandria University, in 2009, with a grade of very good.

He worked in the field of criminal investigation for thirty-two years and held all intermediate and leadership research positions, the most important of which was the criminal investigation agent in Alexandria and the head and director of criminal investigation in the security directorates in Beheira, Gharbia, and Qalyubia.

He received the First Class Medal of Excellence from the President of the Republic in 2011 for his efforts in the field of security

He taught at the Institute of Criminal Sciences in the Public Security Sector, the criminal investigation officers of the Egyptian Ministry of Interior, and taught to students of the Egyptian Police College.

The author has many books, the most important of which are the general theory of criminal investigation, the strike between permissibility and criminalization, electronic means and their role in criminal proof, criminal hotspots and how to confront them, and peer reviewed and published research, the negative repercussions of organized crime and artificial intelligence in criminal investigation, electronic crime, cybersecurity between reality and hope, security mechanisms.

Informatics, general specialty, criminal law and precision, criminal research. He supervised and discussed many doctoral and master's theses and research in the same two specializations.

He is currently an assistant professor of criminal research at the Academy of Police Sciences in Sharjah, United Arab Emirates.

12.2 Abstract

The role of Artificial Intelligence in combating cybercrime in the UAE legislation

Artificial intelligence is a powerful tool that can be used to enhance theability of security authorities to combat cybercrime effectively. Moreover,Artificial intelligence can be a powerful tool in combating cybercrime, But itrequires a balance between power, privacy and ethics in its use, and combating AI-related crimes is undoubtedly an important challenge for the UAE society, not onlyfor this society but for the entire world in the current digital age, Also, The usageof advanced technology such as artificial intelligence is increasing and newchallenges appear in the field of combating cybercrime among the criminalactivities in which artificial intelligence can be used and that pose a threat.

Cybercrime includes all criminal activities carried out using computers, theInternet or other means of digital technology, and these crimes vary from data theftand online fraud crimes to cyber security crimes and political cyber–attacks,Examples of the most important types of cybercrime include the spread of virusesand malware, fraud and phishing in addition to cyber threats, cyberterrorism, as well as identity theft and electronic counterfeiting.



I3– Adeel Khan
Digital Crime Forensic Analyst
RAK Police Forensic Laboratories , UAE

I3.I Biography

Adeel Khan is a Digital Crime Forensic analyst with over 15 years of experience in investigating various types of digital crimes, including cyberbullying, online harassment, identity theft, fraud, human trafficking, hacking, phishing, child exploitation and intellectual property theft.

He currently works at Ras Al Khaimah Police Forensic Laboratories in the United Arab Emirates, where he is responsible for analysing digital evidence and providing expert reports.

13.2 Abstract

Digital forensics, Artificial Intelligence (AI)

Digital forensics has become an invaluable tool in modern law enforcement, revolutionizing crime investigation. This abstract highlights the pivotal role it plays in today's technologically driven world.

While AI has the potential to play a pivotal role in eliminating backlog in digital forensics, extensive research and development are needed to harness its full capabilities. The advantages of digital forensics for policing are manifold. It extracts vital evidence, establishes accurate timelines, and enhances cybersecurity efforts. As criminal activities evolve in the digital sphere, embracing digital forensics becomes imperative for effective policing.



Ms Moza Kudou
Consultant at FTI Consulting Technology segment

14.1 Biography

Moza Kudonu is a Consultant at FTI Consulting's Technology segment, specializing in Information Governance, Privacy & Security, and is based in Dubai. She has successfully completed her bachelor's degree in Forensic Science at Amity University Dubai and is currently pursuing a master's in Artificial Intelligence and Computer Science at the University of Birmingham Dubai. Her training with Dubai Police, which included both forensic and legal components, has equipped her with a wealth of information and valuable skills in the field.

During her bachelor's degree, Moza undertook several courses focused on digital forensics and law, laying a solid groundwork for her comprehensive understanding of information governance, privacy, and security.

Moza holds certifications as a technology expert in various areas, encompassing security, privacy, blockchain, and multiple technology tools. Her dedication to staying at the forefront of her field is evident through her active contributions to cutting-edge advancements. She presented the application of Artificial Intelligence to prevent biased conclusions in ballistics investigations at the 4th International Multiconferences in Advances in Science and Engineering Technology (ASET). Furthermore, Moza has engaged in various research projects. She has also worked on the application of laser measurement devices for crime scene measurements and presented her findings at the 2023 International Conference on Computational Intelligence and Knowledge Economy (ICIKE).

Beyond her professional pursuits, Moza is a researcher and a member of WAI (Women in Artificial Intelligence). Her profound passion lies in artificial intelligence, data privacy, security, and information governance. She is deeply dedicated to exploring and promoting the responsible advancement of technology and its profound impact on information governance, privacy, and security.

14.2 Abstract

The Intersection of Artificial Intelligence: Impact on Data Privacy and Cybercrime

Artificial Intelligence (AI) has rapidly evolved from a futuristic concept to form an integral part of our daily lives. Its development presents transformative opportunities across various industries, including healthcare, finance, and education. Alongside these advancements, AI has made significant contributions to data privacy and cybersecurity. It can help to enhance data protection, improve threat detection, and enable advanced authentication methods. However, the implementation of AI also introduces new privacy risks and challenges, necessitating careful adherence to ethical standards. While AI has the potential to transform lives, it must be implemented within a framework that promotes fairness, accountability, interpretability, privacy, and safety. Data governance plays a critical role in effective AI governance, as the utility–privacy trade-off poses a persistent challenge. This trade-off involves balancing privacy protection and the utilization of user data for valuable insights. Striking a balance between privacy and utility is crucial. To address these challenges, a privacy–by–design (PbD) strategy can be employed, allowing data privacy and AI to coexist as distinct phases within the AI lifecycle. This approach emphasizes the use of data anonymization methods that safeguard privacy without compromising the value of data for AI applications. Protecting data privacy and implementing responsible AI practices are paramount in combating cybercrimes. Continual adaptation and improvement of these measures are necessary to keep pace with the ever-evolving landscape of AI and cybersecurity. This review highlights the importance of data privacy protection and provides insights into best practices for responsible AI implementation in the fight against cybercrimes.

First Day 30/10/2023

HALL (C)

Talk

10:00–10:20 AM

**Prof Hadjazi Omar University Hospital of Sidi Bel Abbes
Algeria**

Death through cardiac inhibition in forensic pathology



Talk

10:20–10:40 AM

**Pr. Hind Abouzahir Hassan II university, Faculty of
Medicine of casablanca**

**Non-accidental Head Trauma in Infants: A Comparative Analysis
of Four Autopsy Case**



Talk

10:40–11:00 AM

**Major.Expert Khudooma Saeed ALnuaimi Expert in
Forensic Biology section, Department of Forensic
Evidences in the Abu Dhabi Police GHQ**

**Importance of UAE insect survey in the development of
forensic entomology in the UAE and the region**

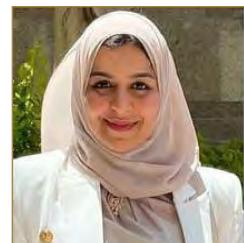


Talk

11:00–11:20 AM

**Dr Yasmin Kamal Abdrabou Assistant lecturer of
forensic and clinical toxicology faculty of medicine, Cairo
university**

**The medico legal importance of circular RNA as diagnostic
and prognostic bio marker in traumatic brain injury in patients
admitted to Ksar Alainy hospitals**



Talk

II:20–II:40AM

**Dr. Mahrous Abdelbasset Ibrahim Associate Professor,
College of Medicine, Jouf University, Saudi Arabia**

Pattern and Medicolegal aspect of traumatic eye injuries



Talk

II:40:–I2:00PM

**Dr. Reem Mahmoud Forensic medicine specialist;
Ras Al Khaimah public prosecution.**

Human trafficking – Forensic Medicine overview



DISCUSSION I2:00 – I2:I0 PM

COFFEE BREAK

Talk

I2:I5–I2:35PM

**Pr.ag Massinissa Benyagoub faculty of medicine
university of Laghouat, Algeria**

**Risk factors and consequences of intimate partner
violence on the health of female victims consulting
at the Forensic Medicine Department in Laghouat,
ALGERIA**



Talk

12:35–12:55PM

**Dr Mohammed Djilali Merzoug Faculty of Medicine Dr.
Taleb Mourad Sidi Bel Abbes, ALGERIA**

Violence against elderly citizens (a comparative study)



Talk

12:55–13:15PM

**Dr El Houssein Lebkem Head of the forensic Medicine
Service at the Nouakchott Military Hospital**

Violence against women in Mauritania ; Nouakchott area



Talk

13:15–13:35PM

**Shaun Roberts SCENESAFE EVIDENCE RECOVERY
SYSTEMS Technical, Research & Development Lead
Sexual assault kits and the importance of ISO 18385**



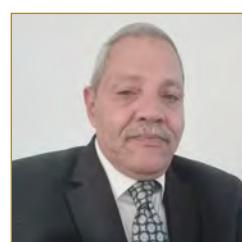
DISCUSSION 13:35 – 13:55 PM

Talk

13:55–14:15PM

**Adel Muhammad Ali Makhlouf
Retired Police Major General**

Preparing homemade explosives using silves



COFFEE BREAK



Talk

14:15–14:35PM

Dr. Ranjeet Kr Singh Director SIFS INDIA Forensic Lab
Deciphering Identity of DVI through Fingerprint

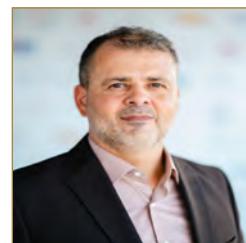


Talk

14:35–14:55PM

**Prof. Ramzi Maalej Professor of Physics at the
University of Sfax, Tunisia**

**Eu-Doped Pyrochlore Crystal Nano-Powders as Fluorescent
Solid for Fingerprint Visualization and for Anti-Counterfeiting
Applications**



Talk

14:55–15:15PM

**Shaun Roberts SCENESAFE EVIDENCE RECOVERY
SYSTEMS Technical, Research & Development Lead**
**The forensic scope CSI PRO Smartphone with scene
safe supranano fluorescent powders becomes a
powerful tool in fingerprint detection**



DISCUSSION 15:15 – 15:25 PM

First Day 30/10/2023

HALL (C)



Prof Hadjazi Omar
University Hospital of Sidi Bel Abbes Algeria

I.I Biography

Degrees: Doctorate of Medicine, 1994, SBA, Algeria, DEMS (Diploma in Legal Medicine), 2010, Algiers, Algeria,
License in Law, 2015, PhD in Legal Medicine, 2017, SBA, Algeria, Master in Law, 2018
Experience: Professor of Legal Medicine, Medical Law & Ethics | SBA, Algeria

I.2 Abstract

Death through cardiac inhibition in forensic pathology

Death through cardiac inhibition in forensic pathology is an important consideration, particularly regarding the potential role of the cardiac inhibitory reflex as a cause of death. Sudden death resulting from vagal inhibition due to pressure on the neck presents challenges for forensic pathologists.

In the case we are presenting, a nine-year-old girl was playing on the terrace of her home and was later found dead in a suspicious position of incomplete hanging. The kitchen apron was around her neck, suggesting that she was hanging from the clothes-drying wire at the crime scene. First-aid responders arrived promptly and confirmed her death before calling the police.

The police believed the crime scene was staged to simulate an accident, as the girl's body was leaning on the ground with her lower limbs in a half-flexed position, and her hands were left free. The most perplexing element for the police was the marks in the form of stripes left by the strangulation wire, which appeared only on the front of her neck, forming a loop in a semicircle. Logically, there seemed to be no obstruction preventing the deceased from escaping her unfortunate fate. This raised doubts and added to the mystery of the situation.

Following the autopsy and toxicological analyses, it was concluded that the hanging was antemortem, and the cause of death was attributed to a cardiac inhibitory reflex.



Prof Hind Abouzahir

Hassan II university, Faculty of Medicine of casablanca

2.1 Biography

Dr. Hind ABOUZAHIR graduated from Public Medical University, she finished Forensic Residency training at the Medico–legal Institute, and became specialist doctor of Forensic Medicine. She obtained her PhD degree and became Assistant Professor of Forensic Medicine at Casablanca Medical University. Trained on the management of dead bodies and the identification of victims of mass disaster at the African School of Humanitarian Action, and autopsy practice at the Berlin Institute of Forensic Medicine and Forensic Sciences.

Corresponding International member of National association of medical examiner.

Participated as keynote speaker in many congresses and conferences.

She have many published papers in reputed journals.

2.2 Abstract

Non-Accidental Head Trauma in Infants: A Comparative Analysis of Four Autopsy Cases

Non-accidental head trauma (NAHT) in infants, commonly referred to as shaken baby syndrome or abusive head trauma, is a grave and often life-threatening condition with severe consequences for affected infants. This abstract presents a comparative analysis of four distinct cases of NAHT in infants, highlighting the clinical presentations, diagnostic challenges, and medical management.

Case 1 involves a 6-month-old male infant who presented with altered mental status and neurological deficits, prompting an immediate evaluation for head trauma. Case 2 is centered around a 10-month-old female infant with an atypical presentation of subdural hematoma, complicating the diagnosis and necessitating further investigation. Case 3 discusses a 9-month-old male infant whose caregiver provided inconsistent information, underscoring the need for vigilance in recognizing potential cases of abuse. Lastly, Case 4 examines a 7-month-old female infant whose timely diagnosis and intervention led to favorable outcomes.

Throughout this analysis, we explore the characteristic clinical features of NAHT in each case, including subdural hematomas, retinal hemorrhages, and brain swelling, often observed in abusive head trauma. We emphasize the significance of thorough medical assessments and differential diagnosis to distinguish NAHT from accidental causes, as accurate identification is crucial for child protection and legal proceedings.

By examining these four cases of non-accidental head trauma in infants, this abstract aims to increase awareness among healthcare professionals and society as a whole, advocating for heightened vigilance and early detection to safeguard the well-being of vulnerable infants and reduce the occurrence of such tragic events.



Major.Expert Khudooma ALnuaimi

MSc. in forensic anthropology in the University of Central Lancashire, UK . MBA

Expert in Forensic Biology section, Department of Forensic Evidences in the Abu Dhabi Police GHQ

3.1 Biography

Major.Expert Khudooma ALnuaimi graduated from the Faculty of Sciences in the United Arab Emirates University in Al Ain in 1999 with B.Sc in Biological Sciences. He completed in 2008 his MSc. in forensic anthropology in the University of Central Lancashire in the United Kingdom also he completed an MBA program in the University of Strathclyde of UK in Abu Dhabi. He is working in the Forensic Biology section, Department of Forensic Evidences in the Abu Dhabi Police GHQ, ministry of interior which he joined in 2000. His duties include attending crime scene investigation, laboratory examination of evidences, and training new staff. His research interest includes forensic anthropology, forensic biology, forensic entomology, and the use of forensic science in biosecurity issues. He is a member in the American Academy of Forensic Sciences and the international Association of Identification. He participated in 2005 in the identification of war victims in Bosnia and Herzegovina using forensic anthropology. He has attended several local and international conferences and workshop.

3.2 Abstract

The important of UAE insect survey in the development of forensic entomology in the UAE and the region

Forensic entomology is the use of insect in criminal and forensic investigation. Regarding time of death estimation using insect and after death certain insect will attack the dead body or corpse as it consider it as a source of food. These insect will go through stages during its life cycle. These stages is expected complete to a certain time depending on the temperature of the place. This time is consider to be a time after death estimation. Insect also can help to identify the location of death if the body was moved from place to place. The UAE has produced the Arthropod Founa of the UAE The Patron of the project H. H. Sheikh Tahnoon Bin Zayed Al Nahyan should be appropriately acknowledged for his passionate support of this project. This project can support the police operation and investigation using recorded forensic related insect. In the UAE, the field of forensic entomology is still growing and it's in its first stages. A survey of an important forensically insect in UAE is needed in order to use in real forensic cases and to expect the insect which can be present in criminal cases. This point is a challenging obstacles will need to be addressed by the specialists and forensic and police decision maker.

This research paper will evaluate and review the Arthropod fauna of the United Arab Emirates project and connected it to solve forensic entomology insect identification problem.

The Arthropod fauna of the United Arab Emirates project has many forensic entomology insect species which was reported in other part of the world. The implication of this research will be valuable for other forensic experts and practitioners who is willing to forensic entomology insect idenfication.



DR Yasmin Abd Rabou

**MB.BCh in Medicine and General Surgery 2013. MSc in forensic and clinical toxicology 2019
Assistant lecturer of forensic and clinical toxicology faculty of medicine, Cairo university**

4.1 Biography

**Worked as a resident at National Toxicology Center (NECTR), Cairo University, Egypt from 2017–2022
teaching practical courses of Forensic medicine, clinical toxicology for undergraduate students faculty
of medicine Cairo university.**

4.2 Abstract

The medico legal importance of circular RNA as Diagnostic and prognostic biomarker in traumatic brain injury in patients admitted to kasr Alainy hospitals

Circular RNAs are novel class of noncoding RNAs which have been involved in the development of various diseases. However, there is little knowledge about their associations with TBI. The present work is a prospective analytical case control study that was conducted on 75 TBI patients at Departments of Emergency, Neurosurgery ICU, and outpatient clinic, Kasr Alainy Hospitals, Faculty of Medicine, Cairo University during the period from July 2022 to January 2023.

The aim of the study is to determine the plasma expression levels of hsa-circ-006732, and other novel genetic biomarkers in TBI patients for purposes of diagnosis, prognosis, follow up and dating of these injuries.

Included patients were divided according to Glasgow Coma Scale into three equal groups (mild, moderate & severe). TBI cases were evaluated for age and sex variation, etiology, manner of trauma, outcome and follow up. CT images were revised. Blood samples were withdrawn at entry then after 5 and 30 days. RT-PCR was used for measuring the expression level of circular RNA (hsa-circ-006732), mi

RNA (hsa-miR-16-5-p) and Lnc RNA (MALAT I). WNT IF protein was measured by Elisa technique. Mean age was (28.7). The majority of patients were males (86.7%). Main cause of trauma was violence representing (44%). TBI patients showed non-significant expression levels of hsa-circ-006732, significant upregulated expression levels of miR-16-5P, MALAT I, AKT3.

Significant down regulated expression level of GSK B, WNTIF with ($p < 0.0001$) compared to controls.

hsa-circ-006732, is a fair diagnostic biomarker, MALAT I is a fair biomarker for detecting outcome, WNT IF is an excellent biomarker for dating of TBI injuries. Further studies are required to investigate the role of hsa-circ-006732 in traumatic brain injuries.



Associate Prof. Mahrous Ibrahim

MD

Associate Professor, College of Medicine, Jouf University, Saudi Arabia .

5.1 Biography

Dr. Mahrous Abdelbasset holds a MD in Forensic Medicine and Toxicology and is currently holding the position of Associate Professor at the Faculty of Medicine – Suez Canal University , Egypt & the College of Medicine – Jouf University in Saudi Arabia. He is the head of the Quality and Academic Accreditation Unit at the College of Medicine, Jouf University & the program accreditation teams. He is a certified Associate Trainers (AT)–National Center for Faculty and leadership Development (NCFLD): Middle East and North Africa headquarters of the International Board of Certified trainer (IBCT).

He has many scientific publications in international journals and periodicals covering forensic medicine, anthropology and clinical and experimental toxicology. He is a reviewer in a number of specialized forensic and Toxicology international journals.

He attended many international conferences specialized in forensic Medicine and sciences, in which he presented his latest research.

He is a member of the Arab Union of Forensic Medicine and Clinical Toxicology (AUFT) and Member of the Arab Society for Forensic Sciences and Forensic Medicine (ASFSFM).

5.2 Abstract

Pattern and Medicolegal aspect of traumatic eye injuries

Forensic specialists might be selected as medical experts by a court with a specific end goal to examine a patient with an eye injury and answer some inquiries. These inquiries as often as possible include difficulties on the grounds that the clinical background and experience of a forensic specialist concerning the field of ophthalmology might not be sufficient in inspecting a patient with a traumatic eye. Objective: To assess the forensic implications of traumatic eye injuries.

Retrospective epidemiological and clinical study included all patients sustaining eye injuries that required hospital admission in the department of ophthalmology, of the University Hospital, Egypt, in a period of 6 months. History, examination, and investigations (CT and MRI) were obtained and recorded according to the standardized classification of eye trauma. Results: Patients of all age groups were found susceptible to ocular trauma (66 patients). The mean age of male and female patients was (23.38±4.9, and 28.73±9.9, respectively). Students represented 34.8% of all injured patients ($p<0.05$). Most patients did not show any delay in presentation to the hospital. The most common mechanism of trauma was road traffic accidents (RTA) in 56.1% of patients ($p<0.05$). Most patients complained of diminished visual acuity and eye swelling (74.3%). CT was performed for all cases and revealed an orbital fracture and rupture globe in most of the cases. MRI showed in some cases compression of the optic nerve by retrobulbar irregular fat. Conclusion: The eye injury has a forensic impact, both of a civil and criminal nature. Essential information about ophthalmology is a vital measurement in offering a medicolegal sentiment. The criminological proof ought to be adequate, exact, and elaborated for the right classification of the offence as indicated by the Penal Code.



Dr. Reem Mahmoud

Master degree 2021 in forensic medicine and toxicology.
Forensic medicine specialist: Ras Al Khaimah public prosecution.

6.1 Biography

Dr. Reem Mahmoud is a forensic medicine specialist: Ras Al Khaimah public prosecution. She had her bachelor degree in medicine and surgery 2011 and achieved her master degree 2021 in forensic medicine and toxicology. She had specialized training on examination of adult and child victims of rape and sexual assault in st Mary's – sexual assault center in Manchester. Dr. Reem was a part of the international visitor leadership program on the US judicial system in protecting women and children.

6.2 Abstract

Human trafficking – Forensic Medicine Overview

Human trafficking is considered a modern form of servitude. It is one of the fastest growing and gainful crimes which includes various ways of human imposition as sex trafficking, forced labor, marriage of minors, begging, and illegal organ transplantation. The consequences of human trafficking are destructive for victims and society, it has social, economic, and health effects in all countries.

The Trafficking Victims Protection Act of 2000 defines sex trafficking as “the recruitment, harboring, transportation, provision, obtaining, patronizing, or soliciting of a person for the purpose of a commercial sex act.”. Any commercial sexual activity under 18 years is considered trafficking, even without force, fraud, or coercion.

There is a strong need for forensic medicine for human trafficking victims. Forensic medical examination is a mandatory element for the victims. Sample collection as soon as possible and encountering injuries as soon as possible is the key to establishing evidence that confirms or denies the allegation leading to the conviction of the assailants. This will assist the other responsible authorities in remedying the victims.



Prof Massinissa Benyagoub

Associate professor in forensic sciences, medical law and ethics
faculty of medicine university of Laghouat, Algeria

7.1 Biography

Promoted to Associate Professor A in the specialty of Forensic Pathology, Medical law and ethical Thesis in medical sciences specializing in legal medicine, medical law and ethics (Risk factors and consequences of domestic violence on the health violence on the health of women consulting at the service of forensic medicine of legal medicine of Laghouat)

Vice Dean of Pedagogy and Student Relations of Medicine of Laghouat, Algeria

Member of the committee of the emergency medicine and surgery of the E.P.H of Laghouat

Member of the committee of guard of the E.P.H of Laghouat

Vice president of the medical council of the hospital of Laghouat

Member of the national board of the learned society Algerian Academy of Development of medical legal sciences

Elected representative of the assistant professors at the board of directors of the university of Laghouat

Acting head of the service of legal medicine E.P.H Laghouat

Editor in chief of the journal AVICENNA MEDICAL RESEARCH the Journal of the Faculty of Medicine of Laghouat

Member of the national committee of pedagogy of graduation medicine (CPNG)

Member of the scientific committee of the Faculty of Medicine of Laghouat

Member of the scientific committee of the research center in humanities and Social Sciences of Malaysia

Member of the national committee of specialty of legal medicine, medical law and Ethics

Member of the scientific committee of the Amar Thelidji University of Laghouat and the faculty of medicine of Laghouat

Member of the ethics committee of the university Amr Thelidji of Laghouat

Participation in many research papers presented at several national and international congresses

7.2 Abstract

Risk factors and consequences of intimate partner violence on the health of female victims consulting at the Forensic Medicine Department in Laghouat, ALGERIA.

Domestic violence has been identified by the World Health Organization (WHO) as a major public health priority and a widespread issue globally. In our country, this violence can significantly impact the physical and mental health of women, as well as the well-being of their children and the entire family. The present study is a descriptive cross-sectional study aimed at identifying the consequences of domestic violence on women's health, both physical and psychological, among victims seeking consultation at the Forensic Medicine Department of Laghouat Hospital. The study also aims to determine the different risk factors associated with the severity of such violence in a region in southern Algeria, where the population profile may potentially differ from other regions in the country.

This cross-sectional study was conducted among 566 female victims seeking consultation at the Forensic Medicine Department in Laghouat, of whom 341 were victims of domestic violence. A structured data collection form was used, and interviews with the victims were conducted. Data analysis was performed using the SPSS program, version 26.

In our series, it was observed that in addition to physical aggression, the perpetrator also utilized other forms of aggression. Verbal and psychological aggression were associated in over half of the cases (51.6%), while all three forms of psychological, verbal, and economic aggression were associated in 25.5% of the cases. Contusions accounted for over half of the observed injuries (54.8%), followed by the combination of contusions and wounds (22%). Using the Posttraumatic Checklist Scale (PCLS), it was noted that 59.5% of our series exhibited signs of post-traumatic stress disorder. Furthermore, using the Beck Scale, it was found that 45% of the victims showed signs of mild depressive episodes, while 38.7% showed no signs of depression. Additionally, using the Hospital Anxiety and Depression Scale (HAD), 47.5% of our population exhibited positive signs of anxiety. The distribution of variables such as frequency of violence (one episode/multiple episodes) and the bivariate logistic regression analysis revealed that factors associated with domestic violence were the victim's age [OR=1.08, CI (1.2–1.14), p=0.01], educational level, occupation, standard of living, marital status, duration of current marriage [OR=1.80, CI (1.37–2.36), p<0.001], number of children [OR=2.03, CI (1.44–2.86), p<0.001], acquaintance with the spouse before marriage [OR=0.29, CI (0.10–0.87), p=0.03], sexual activity [OR=0.29, CI (0.10–0.87), p=0.03], start of the couple's life together [OR=3.10, CI (1.08–8.95), p=0.04], female smoking status [OR=0.19, CI (0.06–0.59), p<0.001], and the association of verbal threats and obscene language [OR=3.94, CI (1.34–11.59), p=0.01].

Based on these results, we will attempt to discuss the different risk factors for domestic violence and its consequences on the health of female victims in a region of southern Algeria.

Domestic violence is preventable, and societal approach plays a crucial role in its prevention. Before studying the benefits of screening, it seems necessary to further investigate the family context through a contextual survey to ascertain the profile of the spouse (personality, traumatic history) and examine the impact of violence on children's development. Societies should take measures against violence through government programs, legal initiatives, media campaigns, official and voluntary organizations, and educational institutions to prevent violence.



Dr Mohammed Djilali Merzoug

Master Assistant in legal Medicine, Ethics and Medical Law
Facukty of Medicine Dr. Taleb Mourad Sidi Bel Abbes, ALGERIA

8.1 Biography

Title of Doctor of Medicine (General Medicine) of the Faculty of Medicine Dr BENZERDJED, University of ABOUBEKEUR BELKAYED TLEMCEN in JUNE 2004.

Medico-surgical emergency doctor at the hospital Mohammed BOUDIAF, Ain Sefra W / NAAMA in (2004– 2005).

Doctor of emergency medical and surgical at the Hospital de GHAZAOUET W / TLEMCEN of (2005– 2008).

Resident Doctor in forensic medicine, ethics and medical law at the level of the medical faculty Dr Taleb Mourad, DJILLALI LIABES SIDI BEL ABBES University during the period 2009–2012.

Diploma of medical study specialized in forensic medicine, ethics and medical law in April 2013 of the faculty of medicine Dr Taleb Mourad, Sidi Bel ABBES.

Doctor Specialist in forensic medicine, ethics and medical law at EL BAYADH W / EL BAYADH Hospital (2013– 2014).

On decision of JURY of passing examination for obtaining the rank of assistant professor in forensic medicine, ethics and medical law in May 2015, whose assignment in the faculty of medicine Dr. TALEB MOURAD, SIDI BEL ABBES.

TEACHING AND COACHING:

Responsible for the module of Ethics, Deontology of students of the 4th year dental surgery during the academic year 2015– 2016.

Responsible for the module of Ethics, Ethics and Forensic Medicine for students of the 6th year LEGAL MEDICINE during the academic year 2016/ 2017.

8.2 Abstract

العنف عند الأشخاص المسنين ظاهرة متعددة (دراسة مقارنة بين مدینتنا وبعض المدن الأخرى)

إن جميع المجتمعات تعامل مع الأشخاص المسنين بتوافق وتكافل دائم وجيد، لكن قد يحصل أن بعض الأشخاص تعنف من طرف آخرين وقد يكونون من الأسرة الواحدة.

من أجل هذا فإن الدراسة المقدمة من قبل مصلحة الطب الشرعي والتمثلة في دريميانية لمدة ستة أشهر (12 - 07) 2022. ذلك من أجل :

- إصداء جميع المتضررين جراء العنف.

- التكفل الفعلي بهذه الفئة المتضررة.

لقد أظهرت أن عدد المعنفيين قد وصل إلى 65 شخصاً ما فوق 65 سنة كما أظهرت أيضاً أن العنف موجه للإناث أكثر منه للرجال ولكن الجروح على العموم كانت سطحية وتمثل في مجموعة من الخدوش والخدمات وبينت الدراسة أيضاً أن العنف الأسري اخذ قسطاً كبيراً في هذا النوع من العنف وسجل أعلى نسبة ويليه العنف من طرف سكان الجوار (أو الجيرا).

قد نجم عن هذا العنف مضاعفات متفاوتة الخطورة لكون الأشخاص المصابين قد يك ونوا تحت علاج دائم (مرض مزمن ما كضغط الدم أو السكري)، هذه المضاعفات كانت نفسيّة أكثر منها عضوية.

لهذا فإن الدراسة بينت أن الأشخاص المسنين المعنفيين يعانون في الوسط العائلي، والمجتمع، لكونهم تحت ضغوطات ربما اقتصادية أو مادية ومرضية معينة. وأن التكفل بهم من جميع الجوانب يتطلب اتخاذ إجراءات معينة ولكن من الصعب تدقيقها دائماً.

كما تجدر الإشارة إلى كون أنه يوجد جانب من العنف الغير عمدي والمتمثل في حوادث المرور مرتكبة في حق المسنين من طرف السائقين.



Dr El Houssein Lebkem

Doctor specialist in of forensic medicine

Head of the forensic Medicine Service at the Nouakchott Military Hospital

9.1 Biography

NATIONAL AND UNIVERSITY DIPMOLAS

Baccalaureate : in 2005 Mauritania, Doctor of medicine : 2015 faculty of medicine of Nouakchott Al ASRIYA, Certificate of Complementary Studies in Writing and Management of Medical Documents : faculty of medicine of Sfax, Tunisia 2020, Certificate of Complementary Studies in Health Law and Ethics : faculty of medicine of monastir, Tunisia 2021, Certificate of Complementary Studies in Bio–Statistics and Methodology faculty of medicine of Sfax, Tunisia 2022, Master in Legal Compensation of Personal Injury faculty of medicine of Tunis AL Manar, Tunisia 2022, Master in Identification and management of women victims of violence : faculty of medicine of Sousse, Tunisia

SCIENTIFIC WORK : 02 Articles Published, 03 Accepted Articles not yet published, 19 Abstracts Published, 10 Participation in international congresses, 42 International Communications.

9.2 Abstract

Violence against women in Mauritania ; Nouakchott area

Violence against women (VAW) is a social scourge considered as a public health problem by its frequency, its seriousness and its significant impact on the health of the victims. In Mauritania, to our knowledge, there are no recent studies related to it. However, this type of violence has recognized an extremely significant increase in the recent years. Therole of the doctor and particularly the one who receives the female victim is essential, not only in the care but also in the screening, the observation of the injuries and the writing of the medical certificate. Hence the idea of this work which proposes to draw up theepidemiological profile of the victims of violence against women, to specify the role of the doctor in the face of violence against women, to determine the importance of the initial medical certificate within the framework of violence against women.

This is a descriptive retrospective cross-sectional study, carried out over a period of 06 months (between February 01, 2023 and July 31, 2023) and related to all cases of female victims of violence against woman, having consulted for initial medical certificate on judicial requisition, at the forensic medicine service of the Military Hospital of Nouakchott as well as the database of certain social organizations fighting against VAW.

We collected 76 cases. The average age of the victims was 44.61 years 9.4. Most of them were between 20 and 30 years old. The victim was unemployed in 82% of cases. The socioeconomic level was low in 62.5% of cases. The majority of victims in our series were of urban origin. A blunt object was the most used means in aggression with a percentage of 91.8% of cases. The upper limb was the seat most affected by the attack in 70% of cases. The bruise was the most observed lesion in 87.5% of the victims. Wounds and fractures were observed in only 3% and 3.3% of cases respectively. The average duration of Temporary Total Incapacity (TTI) was 5 3.5 days. The duration of TTI was zero in 8.9% of the victims. It was less than or equal to 10 days in 92% of cases. No PPI was foreseeable, at the lesional stage.

This study allowed us to note that the female victim of VAW is a young woman, often inactive. Moreover, the medico-legal consequences of the aggressions are most often bruises and abrasions. The involvement of the upper limbs is classic, testifying to wrestling lesions; she has an important forensic interest. We emphasize in this context the role of the doctor who is not only medical but also medico-legal; by writing an initial medical certificate which constitutes an essential document which must be precise, complete, measured and fair.



Shaun Roberts

SCENESAFE EVIDENCE RECOVERY SYSTEMS Technical, Research & Development Lead

10.1 Biography

A versatile Manager, Trainer and Leader with 33 years proven experience in the management of staff, both service and civilian, in the demanding environment of the British Army and private business sector. An experienced Military Police Warrant Officer, Criminal Investigator and Crime Scene Examiner with a demonstrated history of forensic Research & Development, product innovation and implementation within the world of international forensics. Strong leadership, management and training skills within the UK military and law enforcement industries. Skilled in Crisis Management, Forensic & Biometric Intelligence and able to innovate solutions to some real-world forensic problems.

Key Skills: Leadership & Management of staff personal career development Adaptable to be employed within multiple working environments and theatres

Delivering bespoke forensically applicable training, Multigovernment and industry liaison experienced, Experienced forensic equipment developer, Forensic marketplace product key influencer

Career History: SCENESAFE EVIDENCE RECOVERY SYSTEMS Technical, Research & Development Lead – 2014 – Present

Responsible for providing technical forensic advice to all staff members and customers worldwide Undertake all aspects of research & development for the company Liaising with private sector and public bodies to develop new or improve current forensic equipment and capabilities that can then be marketed to the forensic sector around the world Identify and introduce new product ranges for the group Provide in-house forensic and product training to all sales and purchasing teams

HEADQUARTERS SPECIAL INVESTIGATION BRANCH REGIMENT ROYAL MILITARY POLICE Regimental Training Warrant Officer – 2011 – 2014

Accountable to the Commanding Officer for the training management of over 180 military personnel worldwide. Including personal development and personal instruction.

UNITED KINGDOM DEFENCE EXPLOITATION FACILITY (UK DEF) Forensic Laboratory Officer/Training Co-ordinator – 2009 – 2011

Conducting Forensic examination and subsequent exploitation of terrorist related material from around the world.

SPECIAL INVESTIGATION BRANCH (GERMANY) ROYAL MILITARY POLICE

Senior Special Investigator/Crime Scene Examiner – 2005 – 2009, Investigation of serious & major crime committed by soldiers and MOD civilians, whilst serving overseas in European deployments. Conducting crime

scene examinations in line with standard Home Office procedures to assist in the investigation of all types of criminality. Manage, develop and mentor junior investigators within the unit. Deployed on overseas military operations in the Middle East in support of British Forces, investigating all serious crime and operational deaths to assist the UK coroner.

SPECIAL INVESTIGATION BRANCH (UNITED KINGDOM) ROYAL MILITARY POLICE Special Investigator/Crime Scene Examiner – 2002 – 2005

Investigating all serious crime committed by British Soldiers serving with the UK. Collating witness evidence to support allegations of criminal conduct. Conducting interviews after caution of suspects and producing timely reports to Service Prosecuting Authorities. Conducting crime scene examinations.

ROYAL MILITARY POLICE (GERMANY & UNITED KINGDOM) General Policing Duties – 1997 – 2002

Conduct Garrison Policing and be the 1st responder to all types of reported crime and traffic accidents within specified areas of responsibility.

Initiating investigations into criminal conduct by British Forces and certain civilians including carrying out arrests and interviews after caution in both overseas and UK firm base areas including an operational tour of Kosovo. Maintaining military law and discipline for the British Forces.

BATTALION THE DUKE OF WELLINGTONS REGIMENT Infantry Soldier – 1990 – 1997

Qualifications: L4 Award Internal Quality Assurance (IQA) – (On-going), City & Guilds L6 (GCGI)

Leadership & Management

BTEC L3, EDEXCEL 2012, Preparing to Teach in the Lifelong Learning Sector (PTTLS), NVQ 2, OCR 2012, Adult Numeracy, NVQ 2, OCR 2012 Adult Literacy

Training and Continuous Professional Development: 2013 – Disaster Victim Identification, Bomb Scene Manager, Clandestine Burial & Mass Fatality Course, 2012 – Trauma Risk & Incident Management (TRIM) Co-ordinator, 2011 – Military Leadership and Management Training (WO Part I), 2011 – Evidential Drugs Identification Trained (EDIT) – FSS

2011 – L2 Crime Scene Investigation Course (Pro-active Forensics) – NPIA

2009 – Fingerprint Evidence, Recording & Recovery Techniques (FERRT) Course – NPIA

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2001 – Special Investigators Course (PIP L2 Equivalent)

1999 – Platoon Weapons Instructor & Tactical Trainer

1998 – Advance Police Motorcycle Trained

1998 – Basic Driver/Signaller trained

1997 – PEACE 2 Model Trained (Investigative Interviewing)

1997 – Arrest & Restraint Techniques (PST) Trained

1994 – Assault Pioneer Course

1992 – Arctic Warfare Training (AWT)

1991 – Novice Ski & Survival Course (NSSC)

1990 – Kings Division Infantry Junior Leader Training

10.2 Abstract

Sexual assault kits and the importance of ISO 18385

The purpose of this presentation is to provide you with an overview of forensic Medical Examination Kits manufactured in accordance with the Forensic Faculty of Legal Medicine (FFLM) Guidelines – <https://fflm.ac.uk/topic/guidelines/> ISO 18385 (forensic DNA Grade Consumables) and how this is being implemented as part of ISO 15198 (Sexual Assault Referral Centres (SARC) accreditation).





MR Adel Muhammad Ali Makhlouf

Bachelor of Education in Nature and Chemistry, Bachelor's degree in Natural Sciences, Faculty of Science, Assiut University, Diploma in Legal and Police Studies, Egyptian Police Academy, Retired Police Major General

II.I Biography

An internationally accredited expert in the field of fire, explosives and crime scene examination. Member of the General Union of Arab Experts of the League of Arab States. Member of the Egyptian Society of Forensic Evidence. And a criminal science consultant. Member of the scientific committee at the Egyptian legal training and consulting centers and the General Union for Combating Terrorism.

Lecturer at the Faculty of Law, Assiut University, Center for Security Studies.

Training Courses: The main difference for the investigation of criminal evidence, Basic squad for inspection and examination of the crime scene, Division examining the effects of weapons and machinery, Counterfeiting and forgery examination team, Fire Examination Team, Bomb Clearance Squad and Decoys. Complementary squad to detect and secure explosive materials. Central Command Team.

Advanced team to examine the effects of fire. Crime Scene Squad and DNA Fingerprinting Applications. The upper division to examine the effects of fire Basic squad for civil protection and rescue. The advanced squad for detecting and securing explosive materials.

Lecturer at the Faculty of law Suhag University center for security studies, Sohag Law Institute and Qena. lecturer at the Faculty of Medicine Assiut University for Forensic Medicne, Faculty of Medicine Menoufia University Department of Forensic Medicine on criminal nvestigation of poisoning lecturer at the Faculty of Medicine, Kasr EL Aiiny, Cairo University on Investigation of poisoning incidents.

Lecturer at Naif Security University Riyadh on preperation of explosives from slime

Keynote speaker al Naleef Ubniversity 5th International COnference on forensic Medicine, participating with a detailed study of the terrorism

Share a research paper on technological development and information crime, faculty of law Mansoura University

Lecturer in many training courses in Assiut security directorate

Educational courses in Police Training Center and Civil defecnse institute, Egypt

Lecturer in oil and refining companies in Assiut , Evacuation and emergency plans .

Publications: THE TERRORISM SERIES, 3 VOLUMES, IN PRINT, THE VOICE IN PRINT BOOK, PRINTED BY ALFA PUBLISHING HOUSE, ALGERIA, 2022.

RESEARCH PAPER THE ROLE OF EXPERIENCE IN OVERCOMING FINGERPRINT PROBLEMS. JOURNAL OF LAW AND INTERDISCIPLINARY SCIENCES IN ALGERIA,

A RESEARCH PAPER ON THE ROLE OF LABORATORIES IN SUPPORTING SUSTAINABLE DEVELOPMENT, JOURNAL OF LAW AND INTERDISCIPLINARY SCIENCES IN ALGERIA

RESEARCH PAPER IN THE JOURNAL OF LAW AND INTERDISCIPLINARY SCIENCES IN ALGERIA.

INTERVENTION AT DJELFA CONFERENCE, FACULTY OF LAW, ZAYAN D'AHOUR UNIVERSITY, A THOROUGH STUDY OF THE PHENOMENON OF TERRORISM.

RESEARCH PAPER PARTICIPATING SPEAKER IN THE INTERNATIONAL CONFERENCE OF FACULTY OF LAW, MANSOURA UNIVERSITY TECHNOLOGICAL DEVELOPMENT AND INFORMATION CRIME AND ITS REPERCUSSIONS ON SECURITY

II.2 Abstract

The Role of Technical expertise in examining the Bombing crime scene

Terrorist acts are committed by terrorist groups using weapons and explosives, causing destruction to buildings and infrastructure, loss of lives and properties, and instilling fear to achieve reprehensible goals. In our current era, crime has taken on various forms, including terrorist acts which involve organized violence and chaos to achieve terrifying objectives. These acts often involve brutality, aggression, and destruction against individuals, societies, or even states.

In both Egypt and the world at large, numerous despicable terrorist acts have occurred, with gruesome events spanning from 1974 to the present day. Security forces, including officers, personnel, and soldiers of the police and armed forces in Egypt, have dedicated tremendous efforts, marked by their sacrifice, in combating these terrorist incidents.

My work in the field of forensic examination of crime scenes, explosion investigations, and the study of terrorist incidents has led me to explore the role of technical expertise in examining explosion crime scenes. I present an analytical study

of the terrorist explosion incident at the Taba Hotel in South Sinai, Egypt, in 2004. This incident resulted in the deaths of 33 individuals from various nationalities (Egyptian, Israeli, Italian, Russian), destruction of 20 hotel rooms, 14 vehicles, and significant damage to the entire hotel, along with surrounding areas. The explosion, which utilized a car loaded with 200 kilograms of explosives, caused destruction over a distance of more than 350 meters.

The results of the examination and forensic investigation revealed the wreckage of the vehicle used in the incident, found in the basement after the collapse of the ground. The vehicle's chassis number was recorded, and the engine, which matched the chassis number, was discovered about 150 meters away from the explosion's center, creating a hole in a room's wall and causing the vehicle's color to change. The location and position of the explosive device within the vehicle (underneath the car's belly) were determined.

By examining the remains and debris, remnants of the explosive material were found in the victims' bodies at the explosion's center. The explosive substance was identified as a mixture of C3 and C4 explosives, indicating the type of explosive used.

This study highlights the importance of technical examination of crime scenes using modern scientific methods and the transfer of cumulative experiences from seasoned forensic experts and medico-legal professionals. This approach aids in conducting accurate forensic examinations at explosion crime scenes, directing investigations towards the desired goal: identifying the perpetrators, their tools, and apprehending them for justice.



Dr. Ranjeet Singh
M.Sc. and Ph.D
Director SIFS INDIA Forensic Lab

12.1 Biography

Dr. Singh is a well-verses professional with more than 15+ years' experience in the field of forensic science. He is chiefly competent and sought after for his Questioned Document, Cyber Forensics, and Fingerprint expertise. Dr. Singh is the Founder of SIFS India Forensic Lab serving the best forensic services globally. He has completed his M.Sc. and Ph.D. from the University of Delhi and is qualified with CEH and CHFI from EC Council along with additional diplomas and certifications in Forensic Science. On to his name, he has many national and international papers in journals of repute and books published to his credit. He has also provided numerous Legal Reports for Honorable Courts, Police Departments, NCB, and various Government Organizations and Law Enforcement Agencies.

He has rendered services to almost all Life and General Insurance companies and renowned corporates such as TATA group etc. He has given his expert opinion in more than thousands of cases. His contributions and work experiences are not limited to the nation, as he also visited and delivered a lecture in University College Cork, Trinity College, Ireland, University of Philippines, University of Baugio Philippines and Many International University. He has provided services to many countries such as the USA, United Kingdom, France, Australia, and many African countries. He has been often involved in providing free forensic training for thousands of police officials for the betterment and development of the nation with his knowledgeable and intellectual ideas to not only national but international by training many police officials' from countries like Sudan, South Africa, Nigeria, Ethiopia, Jamaica, Uganda, Philippines, etc. His organization SIFS INDIA has many national and international collaborations with various Universities and Organizations that expand the horizon of Forensic Science working on his constant belief in developing and creating new ideas as per the need of the hour. His 'Never Stop Working' style led him to grow even more in the pandemic 2020 where he connected himself with more than 3 lakhs people and 500+ institutions in Forensics. He has many lifetime memberships in Forensic Science with different renowned organizations. He is also a member of the global advisory board of the EC Council.

Dr. Ranjeet Singh is profoundly involved in forensic investigations, forensic training, and forensic education, and has made himself available to conduct the DVI Workshop sharing his knowledge, experience, and expertise with the participants of the workshop. Dr. Singh has marked his self-reliance (ATMANIRBHAR) presence by creating one of its kind user-friendly portal for connecting links of forensics worldwide.

12.2 Abstract

Deciphering Identity of DVI through Fingerprint

Fingerprint analysis plays a crucial role in disaster victim identification (DVI) efforts. When a disaster strikes and multiple casualties occur, it becomes challenging to identify the victims, especially when traditional methods like visual recognition are not feasible due to the condition of the bodies. In such situations, fingerprints provide a reliable and accurate means of identification, as they are unique to each individual and remain unchanged after death. The process of fingerprint identification in DVI begins with the collection of post-mortem fingerprints from the deceased individuals. This can be done through various methods, such as using ink and paper or employing electronic fingerprint scanners. The collected fingerprints are then carefully examined and compared to existing fingerprint databases to search for potential matches. These databases may include records from law enforcement agencies, immigration authorities, and other relevant sources.

Fingerprint examiners, trained in forensic analysis, meticulously analyse the ridge patterns, minutiae points, and other distinctive features present in the collected prints. They compare these features with the prints obtained from the disaster victims, looking for similarities that indicate a positive identification. Advanced software and algorithms are often utilized to expedite the comparison process and enhance accuracy.

In addition to comparing fingerprints to existing databases, efforts may also be made to collect ante-mortem fingerprints from missing persons or individuals who may have been present at the disaster site. These ante-mortem prints can be obtained from personal effects, documents, or databases, and are invaluable in establishing a link between the missing person and the recovered remains.

Fingerprint identification in DVI offers several advantages. Firstly, fingerprints are highly individualistic, making them reliable for establishing positive identifications. Secondly, fingerprints are relatively easy to collect, preserve, and compare, making the process efficient even in large-scale disaster scenarios. Moreover, fingerprints can withstand various post-mortem changes, such as decomposition or burns, making them a valuable source of identification when other methods may fail.



Prof. Ramzi Maalej

PhD of Physics and Habilitation HDR

Professor of Physics at the University of Sfax, Tunisia.

I3.1 Biography

Prof. Maalej is presently a full professor of Physics at the University of Sfax, Tunisia.

He received PhD of Physics from University of Tunis El Manar in 2001 and Habilitation HDR in 2007.

He has supervised fifteen PhD theses, and co-authored more than 85 peer-reviewed scientific journals, three book chapters and six patents.

He is leading a research team “Photonic and Advanced Materials”. His research interests include theoretical and experimental studies of photonic materials for emerging applications as laser glasses, optical and chemical nanosensors and forensic applications. He is actually associate editor of IEEE transactions on nanobiosciences Journal.

He founded in 2022 his first startup Fluoink nanotechnologies which produces antibacterial nanosilver solutions to protect any surface in hospitals from nosocomial infections and pandemic contact contaminations.

13.2 Abstract

From Lab to Crime Scene: New Nanotech's tools for forensic sciences

The collaborative R&D projects between Fluoink Startup and our team represent a significant leap forward in the integration of nanotechnology into the realm of crime-fighting tools. With the development of a new fluorescent powder designed specifically for detecting latent fingerprints at level 3, the partnership has unveiled a powerful tool for forensic investigations. By harnessing the exceptional properties of nanomaterials, this fluorescent powder can reveal minute details and trace evidence that might have previously eluded investigators, thus enhancing the accuracy and efficiency of crime scene analysis.

Simultaneously, the introduction of a groundbreaking fluorescent ink tailored to combat document falsification and product counterfeiting is poised to revolutionize security measures in various sectors. This innovative ink, infused with nano-sized markers and security features, promises to provide a reliable and tamper-evident solution for verifying the authenticity of legal documents and commercial products. By incorporating nanotechnology into the ink's composition, it becomes exceptionally difficult for counterfeiters to replicate or manipulate, thereby safeguarding the integrity of crucial documents and protecting consumers from fraudulent activities.

Furthermore, the collaborative effort has yielded remarkable progress in the development of ultrasensitive optical and biosensors capable of detecting hazardous materials at remarkably low concentrations. Leveraging the exceptional sensitivity and specificity of nanoscale materials, these sensors can swiftly and accurately identify and analyze a diverse range of hazardous substances, including chemical, biological, and radiological agents. This breakthrough holds the potential to revolutionize security protocols, enabling swift and precise detection of potential threats in public spaces, transportation systems, and critical infrastructure, thus bolstering the overall safety and security of communities.

The convergence of these three pioneering R&D projects signifies a monumental advancement in the application of nanotechnology for crime prevention and law enforcement. By harnessing the unique capabilities of nanomaterials, the collaborative efforts have led to the creation of sophisticated tools that not only facilitate more accurate and efficient crime investigations but also fortify security measures in the face of emerging threats. The integration of these nanotech-based solutions into the existing framework of crime-fighting tools promises to usher in a new era of advanced forensic analysis, document security, and hazardous material detection, thereby significantly enhancing public safety and contributing to the establishment of a more secure and resilient societal fabric.



Shaun Roberts

SCENESAFE EVIDENCE RECOVERY SYSTEMS Technical, Research & Development Lead

14.1 Biography

A versatile Manager, Trainer and Leader with 33 years proven experience in the management of staff, both service and civilian, in the demanding environment of the British Army and private business sector. An experienced Military Police Warrant Officer, Criminal Investigator and Crime Scene Examiner with a demonstrated history of forensic Research & Development, product innovation and implementation within the world of international forensics. Strong leadership, management and training skills within the UK military and law enforcement industries. Skilled in Crisis Management, Forensic & Biometric Intelligence and able to innovate solutions to some real-world forensic problems.

Key Skills: Leadership & Management of staff personal career development Adaptable to be employed within multiple working environments and theatres

Delivering bespoke forensically applicable training, Multigovernment and industry liaison experienced, Experienced forensic equipment developer, Forensic marketplace product key influencer

Career History: SCENESAFE EVIDENCE RECOVERY SYSTEMS Technical, Research & Development Lead

2014 – Present

Responsible for providing technical forensic advice to all staff members and customers worldwide Undertake all aspects of research & development for the company Liaising with private sector and public bodies to develop new or improve current forensic equipment and capabilities that can then be marketed to the forensic sector around the world Identify and introduce new product ranges for the group Provide in-house forensic and product training to all sales and purchasing teams

HEADQUARTERS SPECIAL INVESTIGATION BRANCH REGIMENT ROYAL MILITARY POLICE Regimental Training Warrant Officer – 2011 – 2014

Accountable to the Commanding Officer for the training management of over 180 military personnel worldwide. Including personal development and personal instruction.

UNITED KINGDOM DEFENCE EXPLOITATION FACILITY (UK DEF) Forensic Laboratory Officer/Training Co-ordinator – 2009 – 2011

Conducting Forensic examination and subsequent exploitation of terrorist related material from around the world.

SPECIAL INVESTIGATION BRANCH (GERMANY) ROYAL MILITARY POLICE

Senior Special Investigator/Crime Scene Examiner – 2005 – 2009, Investigation of serious & major crime

committed by soldiers and MOD civilians, whilst serving overseas in European deployments. Conducting crime scene examinations in line with standard Home Office procedures to assist in the investigation of all types of criminality. Manage, develop and mentor junior investigators within the unit. Deployed on overseas military operations in the Middle East in support of British Forces, investigating all serious crime and operational deaths to assist the UK coroner.

SPECIAL INVESTIGATION BRANCH (UNITED KINGDOM) ROYAL MILITARY POLICE Special Investigator/Crime Scene Examiner – 2002 – 2005

Investigating all serious crime committed by British Soldiers serving with the UK. Collating witness evidence to support allegations of criminal conduct. Conducting interviews after caution of suspects and producing timely reports to Service Prosecuting Authorities. Conducting crime scene examinations.

ROYAL MILITARY POLICE (GERMANY & UNITED KINGDOM) General Policing Duties – 1997 – 2002

Conduct Garrison Policing and be the 1st responder to all types of reported crime and traffic accidents within specified areas of responsibility.

Initiating investigations into criminal conduct by British Forces and certain civilians including carrying out arrests and interviews after caution in both overseas and UK firm base areas including an operational tour of Kosovo. Maintaining military law and discipline for the British Forces.

BATTALION THE DUKE OF WELLINGTONS REGIMENT Infantry Soldier – 1990 – 1997

Qualifications: L4 Award Internal Quality Assurance (IQA) (On-going), City & Guilds L6 (GCGI)

Leadership & Management

BTEC L3, EDEXCEL 2012, Preparing to Teach in the Lifelong Learning Sector (PTTLS), NVQ 2, OCR 2012, Adult Numeracy, NVQ 2, OCR 2012 Adult Literacy

Training and Continuous Professional Development: 2013 – Disaster Victim Identification, Bomb Scene Manager, Clandestine Burial & Mass Fatality Course, 2012 – Trauma Risk & Incident Management (TRIM) Co-ordinator, 2011 – Military Leadership and Management Training (WO Part I), 2011 – Evidential Drugs Identification Trained (EDIT) – FSS

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2009 – Fingerprint Evidence, Recording & Recovery Techniques (FERRT) Course – NPIA

2007 – Team Medic Trained/Basic Life Support

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1997 – Arrest & Restraint Techniques (PST) Trained

1994 – Assault Pioneer Course

1992 – Arctic Warfare Training (AWT)

1991 – Novice Ski & Survival Course (NSSC)

1990 – Kings Division Infantry Junior Leader Training

14.2 Abstract

The forensic scope CSI PRO Smartphone with scene safe supranano fluorescent powders becomes a powerful tool in fingerprint detection

The purpose of this presentation is to detail the implementation of the Forenscope CSIO PRO Smartphone and its combined use with SceneSafe Supranano Fluorescent fingerprint powder into RAK CSI for use at crime scenes in order to speed up the fingerprint search, capture and transit latent marks back for identification.

Second Day 31/10/2023

HALL (A)

Talk

09:00–09:20 AM

Prof Dr Dina A. Shokry President of Arab Union of Forensics and Toxicology AUFT

Artificial intelligence (AI) Applications in Forensic Medicine and Sciences



Talk

09:20–09:40 AM

Dr Jaskaran Singh Dean Research, Head of Forensic Science Department Geeta University Panipat, India

Smart Forensics: A Boon in Criminal Investigation



Talk

09:40–10:00 AM

Prof Rachid Belhadj Chairman of the National Specialty Educational Committee Forensic Medicine, Medical Law and Ethics Algeria

تدبي رقمنة الطب الشرعي في الجزائر



Talk

10:00–10:20 AM

Prof Maha Abd El Hamid Ghanem Head of department of forensic medicine and clinical toxicology , Faculty of medicine Alexandria University

Artificial intelligence (AI) in Forensic medicine



Talk**10:20–10:40AM**

Assistant Professor Dr. Mayssa Hachem Assistant Professor of Chemistry, Khalifa University of Science and Technology (KU) in UAE.

Smart Forensics: A Boon in Criminal Investigation

**Talk****II:00–II:20AM**

Prof. Dr. Adarsh Kumar President of Indian Academy of Medicolegal Experts IAMLE, Council Member of International Academy of Legal Medicine

Medico-legal Aspects of Child Abuse in India

**Talk****II:20–II:40AM**

Professor Ahmed Belhouss Professor of Forensic Medicine, Medicolegal Institute of Ibn Rochd university hospital center, Casablanca, Morocco

Abortion: Religious, ethical, and legal considerations

**Talk****II:40–I2:00PM**

Professor Helene Yapo Ette Full Professor at the Universities of CAMES Member States, Abidjan Cases of forensic exhumations

**III**

Talk

I2:00–I2:20PM

**Prof Dr Nermin Adly Mahmoud Hassan Professor
Forensic Medicine and Clinical Toxicology Faculty of
Medicine Zagazig University Egypt,**

Family violence against children during COVID-19



Talk

I2:20–I2:40PM

**Dr Adnan Abbas Director National Institute
Of Forensic Medicine Jordan**

Human trafficking – Forensic Medicine overview



DISCUSSION I2:40 – I2:50PM

COFFEE BREAK

Talk

I3:00–I3:20PM

**Prof Dr Carlos Cuadrado Director of the Department of
Forensic Medicine at the Medical Health Commission,
FEMECA Spain**

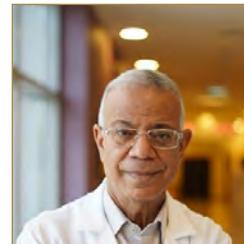
**Exploring the Minds of Virtual Offenders: A Forensic
Approach to Mental Health**



Talk

I3:20–I3:40PM

**Prof Dr Talaat Matar Professor of Psychiatry , RAK,
medical and health science university Consultant
psychiatrist, RAK hospital , Ras Al Khaimah ,UAE
Legal Responsibility of an Offense Committed by a
Mentally ill Individual: An Overview**



Talk**I3:40–I4:00PM**

Ms Caroline Ward Senior Counsellor in University College Dublin, a member of the Irish Association of Counselling and Psychotherapy

Psychological counseling in the assessment, therapy and recovery of adult survivors of child abuse within healthcare and medico-legal settings



DISCUSSION I4:00 – I4:20 PM

Talk**I4:20–I4:40 PM**

Prof Dr Eman El Zahed Professor Forensic Medicine and Clinical Toxicology Department Faculty of Medicine Zagazig University Egypt

Do-Not-Resuscitate (DNR) physician orders: medicolegal consequence and ethical consideration

**Talk****I4:40–I5:00 PM**

Dr Maha Saeed Alali Dubai Academic Healthcare Corporation DAHC Al Jalila Childrens Speciality Hospital

From Innocence to Offense: A Look into Juvenile Criminal Behavior

**Talk****I5:00–I5:20 PM**

Dr. Omnia Ibrahim Mohamed Hassanein RAK Medical and Health Sciences University

Forensic Investigations and Language: A Critical Review of Forensic linguistics and Communications Skills.



DISCUSSION I5:20 – I5:40 PM

LUNCH



Second Day 31/10/2023
HALL (A)



Prof Dr Dina Shokry

M.B.B.Ch, MSc, MD. Fellowship of medical education: FAIMER institute (ASU–MENAFRI).
President of Arab Union of Forensics and Toxicology AUFT

I.I Biography

President of Arab Union of Forensics and Toxicology (AUFT) , Professor of Forensic Medicine and Clinical Toxicology, Chair of Forensic Medicine Department- Armed Force Collage of Medicine (AFCM) and Modern Academy of sciences and technology (MTI), Egypt

Chair of Forensic Medicine Department- Armed Force Collage of Medicine (AFCM) and Modern Academy of sciences and technology (MTI), Egypt Professor of Forensic Medicine and Clinical Toxicology and former head of the department Cairo University

Dr. Shokry is a Professor of Forensic Medicine and Clinical Toxicology Faculty of Medicine, Cairo University and chair of Forensic medicine Armed Force Collage of Medicine (AFCM) and MTI –Egypt. Professor of human sciences New Giza University (NGU). She is the president of New Mediterranean Academy of Forensic Sciences (nMAFS) . She is the president of the Arab Union of Forensics and Toxicology (AUFT) which is a branch of Arab Medical Union. Prof. Shokry joined the Scientific Advisory Board of the Office of the Prosecutor of the International Criminal Court (OTP– ICC) February, 2014. She is a certified trainer in bioethics UNISCO, and Certified forensic assessor – Egyptian Accreditation Council, EGAC.

Prof. Shokry is a roster in JRR and UN Woman, 2015. She is members of the INTERPOL Forensic Science Managers. Prof. Shokry is a board member of the International Committee of Red Cross (ICRC). Prof. Shokry is the chair of Central Research Ethics Committee (Supreme Council of University Hospitals) she is a board member of the International Association of Body damage (AIDC)–representative of North Africa and Middle East. Prof. Shokry is the editor-in chief of The Egyptian Journal of Forensic Sciences and Applied Toxicology (cited). she is a board member of Research Ethics and clinical research, WHO, Cairo, the Executive Director of Research Ethics Committee, MUST and a board member of the Middle East Clinical Research Association (MECRA), Lebanon. Dr. Shokry is the contact for the DAAD academic activities in Egypt and UNHCR, ICRC and UNFPA (United Nation and International Committee of Red Cross preventative bodies) forensic consultant in Egypt. Prof. Shokry is a member of ad hoc committees for constructing the medical directory for the Egyptian doctors to deal with the female victims of violence and to put the Egyptian law for malpractice and medical responsibility, 2014 and the updated

protocol by WHO.

Prof. Shokry got certificates in Basic and Advanced Security in the Field, 2015 from United Nation Department of Safety and Security (UNDSS). She is one of justice rapid response roasters, professor Shokry accomplished mission in training healthcare providers in Jordan on how to deal with cases of Gender based violence UN Women. She is part of national training program for preparing the physician to manage cases of gender-based violence UNFPA. Prof. Shokry is a member of the scientific research.

Publications: Prof. Shokry has published more than 50 researches in national and international journals. She is the author in the following text books : Forensic Medicine: A guide to principals, Text book, 2006, Clinical Toxicology A guide to principals, Text book, Colored Atlas ; Forensics and toxicology, Text book., Medical Ethics: An introduction for medical students", Text book. "Medical ethics, law and medical responsibility," "Good practice, communication skills for medical Practitioners,. Text book.

A chapter on forensic science practice in Egypt as a part of encyclopedia of the Global Practice of Forensic Science, First Edition. Published 2015 by John Wiley & Sons, Ltd. on behalf American Academy of Forensic Sciences (AAFS), Methods of Ascertainment of Personal Damage in Egypt in, Personal Injury and Damage Ascertainment under Civil Law, 2016 Springer. Prof. Shokry was a coauthor in the (Personal Injury and Damage Ascertainment under Civil Law) published by Springer international publishing Switzerland, 2016. She is a coauthor in Padova Charter on personal injury and damage under civil-tort law Medico-legal guidelines on methods of ascertainment and criteria of evaluation in Int J Legal Med, the official journal of the international academy of forensic sciences (IALM), 2016. Back to the Future-Part I. The medico-legal autopsy from ancient civilization to the post-genomic era, International journal of legal medicine, 2017 Springer, Back to the Future-Part II . The medico-legal autopsy from ancient civilization to the post-genomic era, International journal of legal medicine, 2017 Springer, Diagnostic value of multiphase computed tomography angiography in selected cases of blunt traumatic deaths, J legal medicine, July, 2018.

I.2 Abstract

Artificial intelligence (AI) Applications in Forensic Medicine and Sciences

Artificial intelligence (AI) is a significant and well-established branch of current computer science that may frequently give a way of addressing computationally massive or difficult issues in a reasonable time period. The predominance of artificial intelligence (AI) will be the next Industrial Revolution. All the fields of industry will be reshaped with AI.

Forensic medicine and related sciences are important for investigations of crimes and there will be tremendous development with the help of AI. It will help much in resolve limitations in conventional autopsy. Other procedures of forensic medicine like : toxins screening and analysis, collection of the various samples for medicolegal purposes, pathological examination of various body organs, identification of biological stains, estimation of time passed since death identification of a weapon used in crime, etc. are the areas where AI will play a key role in framing the various opinions of medicolegal importance. AI can also be integrated into existing testing and analysis processes to make the whole procedure rapid and more accurate. In the future, AI might become a key part of forensic medicine and toxicology practice.



Dr Jaskaran Singh

Dean Research, Head of Forensic Science Department Geeta University Panipat, India

2.1 Biography

Ph. D, M.sc Forensic Science (Gold Medalist), B.Sc.(H) Forensic Sciences (Silver Medalist)

Dr Jaskaran Singh is the Dean Research at Geeta University, Panipat, India. He is also serving as the Head of the Forensic Science Department at the Geeta University of Panipat, India. He held the INSPIRE fellowship for pursuing doctoral degree from the Ministry of Science and Technology, Govt. of India. Dr. Singh completed his Ph.D. at Amity University. His research interests focus in the area of emerging fields of forensic sciences and medicine, ranging from theory to practical implementation. He has conglomerated with researchers in the other disciplines of allied and health sciences. He believes in the Multi and Trans-disciplinary approach of extensive research leading to several Patents, Copyrights and Books. Served Key and Invited speaker for many National and International Conferences. Additionally, trained National and International Police officers in the field of forensic investigations. Furthermore, Dr. Singh received Honorary Professorship from ISPTEC, Angola. He is also the recipient of honored fellowship FSIESRP from the Society of Innovative Educationalists and Scientific Research Professional, Malaysia.

2.2 Abstract

Smart Forensics: A Boon in Criminal Investigation

The conventional means of forensic investigation is rapidly shifted to the metaphor for smart i.e utilization of various contemporary technologies in the forensic and criminal justice system. These include Internet of things (IoT), cyber physical environments, molecularly imprinted polymers, nano–biosensors, cryptographic security sharing and many more. Within these services, the operations are potentially operated autonomously to complete a given task and provide specialized trained services. Therefore, the introduction and utilization of these cutting edge technologies herald the invention of familiar security shelters which leads to trustworthy investigations. There are many existing hyphenated technologies which can be utilized for the investigations. This paper portrays the attempt of showcasing different smart technologies and their implications in forensic investigations with special emphasis on real cases.



Prof Rachid Belhadj

Chairman of the National Specialty Educational Committee Forensic Medicine, Medical Law and Ethics Algeria

Biography

University: September 1989: Doctor of Medicine (Faculty of Medicine of Algiers), December 1989 – June 1993: Resident Doctor in Forensic Medicine, Mustapha, University Hospital, good ranking (104), I have voluntarily chosen Forensic

Medicine: February 1993: Special Diploma of Medical Studies in Forensic Medicine,
Valedictorian: May 1994: Assistant Professor in Forensic Medicine, valedictorian, July 2007: PhD in Medical Sciences. Thesis: Adult Sudden Death from Cardiac

Origin with high honors and congratulations of the jury: December 2007: valedictorian rank in the Medical Sciences Senior Lecturer

Contest: June 2011: Ranked 2nd in the contest for access to Medicine Professor grade, March 2014: Valedictorian in the contest of Head of Department

Accademic career: May 1994: Tenure as Assistant Professor, Chairman of the National Specialty Educational Committee (Forensic Medicine,

Medical Law and Ethics) since 12/07/2017: Chairman of the Regional Specialty Educational Committee (Forensic Medicine,

Medical Law and Ethics) from 12/05/2012 to 12/07/2017: Vice Chairman of the National Specialty Educational Committee (Forensic

Medicine, Medical Law and Ethics) from 27/09/2012 to 12/07/2017: Lecturer at the High School of Magistrates, 2017 to date: Teacher at the Higher School of the National Gendarmerie of

Zeralda: 2013 to date: Teacher at the National Police Schools, Chairman of the Scientific Council of the Faculty of Medicine of Algiers

(2017–2020 to date): Responsible of Medical Law module, Responsible of Forensic Medicine module, Responsible of Medical Ethics module, Member of the Joint Committee of the medicine faculty of Algiers and appointed by ministerial order, 1994 – present: Teaching 6th year students (Forensic Medicine module), 1994 – to date: Forensic Medicine Residency Teaching, 1st year (Judicial Forensic Medicine) 1994 – to date: Forensic Medicine Residency Teaching, 3rd year (Physical Damage) 1994 – to date: Forensic Medicine Residency Teaching, 4th year (Medical Law) 2014: Head of the Forensic Medicine Department of the Mustapha University Hospital, 2015: Director of Medical and Paramedical Activities of the Mustapha University Hospital, 2017 to date: Chairman of the Ethics Committee of the Mustapha University Hospital, 2020 to date: Coordinator of the COVID-19 unit of the Mustapha University Hospital, 2019 to date: Use of a new technique on the reconstruction of the fingerprint on heavily charred

or putrefied cadaver, 1997 – 2014: Head of University Hospital Unit (Unit of Prison Medicine Isolation), 1994 – 2014: Consultation Activity in the Forensic Medicine Department –Mustapha University Hospital
I994 – 2016: Thanatology in the Forensic Medicine Department – Mustapha University Hospital, 1994 – 2016: Care and Prevention Activity in the Unit of Prison Medicine Isolation
Mustapha University Hospital: 2005 – 2016: Head of guard activities in the Forensic Medicine Department –
Mustapha University Hospital: 2014 to date: Member of National Renal and Cornea Transplant Committee
Hospital Functions: Forensic expert in physical damage in traffic accidents and work accident, Participation in the first genetic study in 2001 in collaboration with the policeservices of the wilaya of Algiers and the Spanish DNA forensic identificationservice during the exhumation of a female victim of floods of Bab El Oued, Expert in the identification of persons (Attempt to Tiguentourine and Ukrainianplane crash)
2003 to date: several forensic missions in collaboration with the services of the judicial police of the wilaya of Algiers (the three divisions and the Brigade of Research and Intervention services): Expertise of bones in the laboratory of forensic science Algiers, Participation in the identification of bodies or human remains operations during natural disasters (Bab El Oued floods in 2001 and earthquake of Algiers and Boumerdes in 2003) with exhumations: Member of the jury of several defenses in Medical Sciences, Member of the jury of defense of ingenuity at the Forensic Laboratory of Algiers, 2021 to date: Member of the National Civil Society Observatory appointed bythe President of the Republic: 2019 to date: Director of a scientific research laboratory entitled **ForensicAnthropology**.
2018 to date: President of the Algerian–French Mixed Scientific Commission forthe expertise of the skulls and human remains of the First Algerian Resistancefighters stored at the Museum National d'Histoire Naturelle of Paris; 2018 to date: Founding member and Vice–President of the Maghrebian Societyof Forensic Medicine:2015 to date: Founding member and President of the Algerian Academy ofDevelopment of Forensic Sciences 2018 to date: Founder and Editor-in-Chief of the biannual Scientific Review ofthe Algerian Academy for the Development of Forensic Sciences – February 2017 to date: Elected Member of the International Humanitarian Fact–Finding Commission based in Geneve, Switzerland
1998 to date: Expert approved by the courts
2004 – 2007: General Secretary of the Algerian Society of Forensic Medicine
Founding member of the Arab Countries International Society of Forensic Medicine: 2019: Publication of a book entitled **The instinct of the forensic doctor** (in Arabic and French)

3.2 Abstract

تحدي رقمنة الطب الشرعي في الجزائر

تجربة مصلحة الطب الشرعي في مستشفى مصطفى الجامعي

أحد التحديات الرقمي في خدمة الطب الشرعي في مستشفى مصطفى الجامعي، التي يرأسها الأستاذ الدكتور ر. بلجاج، تغييرات هامة. تتألف خدمات مصلحة الطب الشرعي في مستشفى مصطفى الجامعي من اثنين عشرة وحدة متخصصة، تلعب كل وحدة منها دوراً أساسياً في مجال الطب الشرعي. وحدة الاستشارات المتخصصة في الطب الشرعي، وحدة التشريح الطبي الشرعي، وحدة علم الخلايا، وحدة الدراسة الباطنية الخارجية، وحدة الأنثروبولوجيا الشرعية، وحدة عناية صحية للمريضين داخل المستشفى، وحدة الإستعجلات الطبية الشرعية، وحدة علم السموم الشرعية، وحدة استشفاء النواقل البشرية للمخدرات: وحدة الكشف بواسطة السكانيري في الطب الشرعي، وحدة فحص ضحايا العنف الجنسي، وحدة الدعم النفسي للضحايا، لتدسين عمل هذه الوحدات، قامت خدمة الطب الشرعي بتطبيق التحول الرقمي الكامل. تستند كل وحدة سجل إلكترونياً يسجل المعلومات الخاصة بكل نشاط، بالإضافة إلى نماذج التقارير والنتائج والاستعلامات التي يجب تعبئتها. يقوم الأطباء الشرعية بكتابة التقارير مباشرةً في ملف معالجة النصوص، مما يسهل إدخال المعلومات. يتم مراجعة كل وثيقة مرتين: أولاً من طرف الخبر المسؤول عن المهمة الطبية الشرعية بشكل كامل، بما في ذلك إدخال البيانات في السجل الإلكتروني ومليء النماذج والاستعلامات وإعداد التقرير النهائي،طبع الوثيقة النهائية وتوريدها. ثانياً عند نهاية المطاف، يُنهي رئيس المصلحة بصفته المسؤول الرئيسي العملي عن طريق أرشفة الوثائق نهائياً، حيث لا يمكن الوصول إلى هذه الوثائق أو تعدلها إلا من قبله. هذا التحول الرقمي قد ساهم في تدسين كفاءة ودقة خدمة الطب الشرعي في مستشفى مصطفى الجامعي. يمكن للأطباء الطب الشرعي الآن إدارة المعلومات بسهولة أكبر، وضمان تبعيّن دقيق للتقارير، وضمان جودة الرعاية والتلليل الطبي في إطار القضايا القضائية.



Prof Maha Abd El Hamid Ghanem

Head of department of forensic medicine and clinical toxicology , Faculty of medicine Alexandria University

Biography

Head of department of forensic medicine and clinical toxicology

Chairman of the scientific committee –Supreme Council of Universities

Vice chairman of central committee of ethics of scientific research –supreme council of university hospital

Chairperson of IACUC – Alex (University of Alexandria)

Chairman of Medical Ethics Committee at Faculty of Medicine

Rapporteur of medical responsibilities and legal support committee medical syndicate

Deputy Editor of Alexandria medical journal , Editorial board membership of EJFSAT and reviewer in several journals

Assessor of forensic and toxicologic units in The Egyptian Accreditation Council

External evaluator of doctorate and master degree in Egyptian universities

Former General secretary of the Supreme Council of Health chairman of general medical council– Ministry of Health

Director and head of poison center and Forensic Medical Advisory Unit Alexandria university faculty of medicine

4.2 Abstract

Artificial intelligence (AI) in Forensic medicine

Forensic experts commonly face many challenges in their profession that can render an investigation failed, leading to injustice. Insufficient evidence, complex environments, endless data, and outdated laboratories all result in drawn-out investigations with a high error rate. In order to solve these issues, employing Artificial Intelligence (AI) into criminal investigations has been proposed. Since it is capable of data analysis, data mining, image processing, pattern recognition, and statistical analysis, it can potentially help forensic experts to make faster, more accurate decisions. As such, AI can be used in many aspects e.g., estimating biological profiles, identification through comparative radiography, narcoanalysis, pathology analysis and postmortem interval determination, 3-D reconstruction of crime scenes, effectively handling DNA evidence, and recognizing blood patterns and ballistics. It also highlights the shortcomings of using AI technology, which includes biases, limitations of datasets, training requirements, as well as ethical and legal issues. In conclusion, AI technology has a promising future in the forensic field. However, it cannot replace human judgment and it still needs more research before being conventionally used as an adjunct by forensic experts.



5– Assistant Prof Dr. Mayssa Hachem

Msc and Ph.D

Assistant Professor of Chemistry, Khalifa University of Science and Technology (KU) in UAE.

5.1 Biography

Dr. Mayssa Hachem is an Assistant Professor of Chemistry, Forensic Chemistry track at Khalifa University of Science and Technology (KU) in UAE.

Dr. Hachem completed her Msc and Ph.D. in Biochemistry from National Institute of Applied Sciences ‘INSA’, Lyon, France with a distinction Award for higher education in Biochemistry.

Throughout her career, Dr Hachem occupied several academic and research positions in France and UAE and has served on various forensic and biochemistry program development and university committees.

Before joining Khalifa University, Dr Hachem served as Assistant Professor and Research coordinator in Forensic Science at Amity University of Dubai where she was extensively involved in the development of undergraduate and postgraduate forensic science program.

Dr Hachem’s research interests concern forensic science, lipid biochemistry and drug targeting.

She published numerous scientific papers in the field of forensic science and biochemistry in highly ranked peer-reviewed journal. Additionally, she presented in several international conference among them, lately 75th American Academy of Forensic Science in Florida, USA and 62nd International Conference of Bioscience of lipids, Montreal, Canada.

5.2 Abstract

Artificial intelligence in Prediction of Post Mortem Interval Through Blood Biomarkers in Forensic Examination: A Concept

Determining Post–Mortem Interval PMEis a critical step in forensic investigations of death cases and its accurate estimation is an essential task for forensic examiners. Prediction of PMI is one of the most challenging variables to quantify and establish for forensic examiners for over years despite numerous development in this area. Several approaches have been established to define the time of death depending on short or longer PMI. Recent developments in biochemical technologies have started to identify biomarkers in different biological fluids such as blood and urine for PM estimation. Since forensic investigations are hurtling toward the introduction of Artificial Intelligence AI, intelligence exhibited by machines trained to learn and solve problems, the present project outlines a concept of an intelligent device with application in FMI prediction through measurement of pH blood level and profiling of different key metabolites in blood. These metabolites include Lactate dehydrogenase LDH, enzyme typically restricted to cells cytoplasm and released out only after cell death and Aspartate aminotransferase AST, enzyme converting aspartic acid to glutamate.

Blood concentration of these enzymes normally increase in the first three days after death, Furthermore, the device will detect triglycerides and cholesterol levels in blood since few studies suggested a postmortem decrease in these lipids concentration in blood in vitro over time.

To summarize, when murder victim is found at crime scene, the blood can be collected from femoral vein then analyzed directly using the proposed device with AI for the dosage of all mentioned metabolites of interest along with blood's pH level. These data combined can be interpreted and compared to different database to estimate PMI. The use of these biochemical markers could be promising tools in forensic death investigations. However the practicality of the suggested device should be evaluated on an institutional foundation.



6– Prof. Dr. Adarsh Kumar

BSc, MBBS, MD, PGCHM, FIAMLE, FISCA, FIST, FIAFM Double Commonwealth Fellow, Dundee, Scotland UK
President of Indian Academy of Medicolegal Experts IAMLE, Council Member of International Academy of Legal Medicine

6.1 Biography

Professor, Forensic Medicine & Toxicology Dept of Forensic Medicine & Toxicology Faculty I/c,
Forensic Anthropology and Forensic Radiology Chairman,

Disability Evaluation Board AIIMS Trauma Centre AIIMS, New Delhi

Prof. Adarsh a Gold medallist is currently Professor, Forensic Medicine & Toxicology and also in-charge of Forensic Anthropology & Forensic Radiology, AIIMS, New Delhi. He is lone member from India in International Academy of Legal Medicine, British Association in Forensic Medicine, The International Association of Forensic Toxicology and Canadian Society of Forensic Sciences besides being life member of many scientific associations from India and abroad. He was awarded Honorary Diploma in Legal Medicine by International Academy of Legal Medicine at Portugal in 2009. He is the first person in world to receive Commonwealth Fellowship at UK twice- 2011 and 2015. He is also a Fellow of Royal Society of Medicine, London, IAMLE (2014), International Science Congress Association (2015), Indian Society of Toxicology (2016) & Indian Academy of Forensic Medicine (2020). He is honorary medicolegal Expert to National Human Rights Commission and Central Bureau of Investigation-topmost agency of criminal investigation in India since more than a decade where he has handled around one thousand complicated and high profile cases like Sushant Singh Rajput, Sheena Bora, Sunanda Pushkar, Hathras , Badaon two sisters death case, Tamilnadu custodial deaths , Telangana encounter case , Nithari children case etc.

Prof. Adarsh is Visiting Faculty to Anglia Ruskin University, Cambridge, UK, National Piragov University, Vinnitsya Ukraine, National Police Academy, Hyderabad, CBI Academy Ghaziabad, National Institute of Criminology & Forensic Sciences, New Delhi, Central Detective Training Institute, Chandigarh and Central Academy of Police Training Bhopal. He has more than 24 years of teaching experience and medicolegal field work. Has guided 15 PhD/postgraduate students and conducted around 10000 autopsies. His PhD students have been from field of forensic toxicology and forensic anthropology who have done their MSc in Forensic Sciences from various universities. Has been examiner and subject expert in Forensic Medicine & Toxicology in various universities of 15 states of India including various AIIMS as well as Nepal, Mauritius & New Zealand. Delivered 5 orations & more than 100 lectures in various scientific conferences all over the world, published 80 papers, written 5 chapters in various textbooks, acted as Editorial board member and peer reviewer in 20 journals of speciality from India and abroad. Currently also Wed Editor of International Journal of Health Research & Medicolegal practice. He has developed MOOC Videos in

3 subjects Forensic Medicine, Forensic Anthropology and Forensic Serology and Biology for MHRD, Govt of India under Digital India Mission in 2016 for SWAYAM portal which are now freely made available on Youtube Vidyamitra channel.

Representing the country at highest level as Governing Council Member of 3 International scientific organisations viz. International Academy of Legal Medicine, Indo-pacific Association of Law, Medicine & Sciences (Secretary General-2022–25 & Asia Pacific Association of Medicolegal Agencies. Currently Hony. President of Indian Academy of Medicolegal Experts (IAMLE). He was honoured with Commendation Certificate for his exemplary work in field of Forensic Investigations & Human Rights by National Human Rights Commission in 2014. He was awarded with Education Award for Excellence by Indo-US Global Foundation in 2016, International Cooperation Medal by Government of Ukraine in 2020 & Forensic Excellence Award in 2023.

6.2 Abstract

“Medicolegal Aspects of Child Abuse in India—an update”

Child abuse or maltreatment constitutes all forms of physical and/or emotional ill treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power. According to the World Health Organization (WHO), there were an estimated 57,000 deaths attributed to homicide among children under 15 years of age in year 2000. Also, statistics provided by the WHO (2018) indicates that one out of four adults have been abused during their childhood. Globally, it is estimated that up to 1 billion children aged 2–17 years, have experienced physical, sexual, or emotional violence or neglect as reported by WHO (2021). It is a fact that child abuse can happen to any family, no matter what their race, religion or socioeconomic background is.

India has one of the largest populations of children in the world. As per current statistics India has a population of 444 million children below the age of 18. Protection of children by the state is guaranteed under Article 21 of the Indian constitution, and mandated since India is signatory to the UN Convention on the Rights of the Child. Child sexual abuse laws in India have been enacted as part of the nation's child protection policies. The Parliament of India enacted ‘Protection of Children Against Sexual Offences Act’ (POCSO) in 2012. The number of cases registered for child abuse raised from 8,904 in the year 2014 to 14,913 in the year 2015, under the POCSO Act. In year 2020, there were 47,221 POCSO cases out of 1,28,531 cases of crime against children and 47,335 of 1,48,185 such cases in 2019. As per latest NCRB report in 2019, 1,48,185 crimes against children were reported which meant that each day over 400 such crimes are committed in the country.

The age of the child has also been defined under different acts as different e.g Indian Factories Act as 14 years, Juvenile Justice Act as 16 years earlier and now 18 years. Younger children are at greater risk of abuse than older children. Early diagnosis is most important for further prevention of all kinds of abuse. Evaluation of a child with suspected abuse by a multidisciplinary team comprising of Paediatrician, Child psychiatrist, Forensic Medicine Expert, Medical Social Service Officers/Workers is need of hour which has given rise to concept of placing “One Stop Help Centre”. In case of suspected death of a child role of forensic medicine expert becomes even more crucial in unearthing various evidences. The talk will dwell deeper into these aspects and share experience of handling variety of such interesting cases.



Professor Ahmed Belhouss

Professor of Forensic medicine at the Faculty of Medicine and Pharmacy, of Casablanca, Morocco.

Professor of Forensic Medicine, Medicolegal Institute of Ibn Rochd university hospital center,
Casablanca, Morocco

7.1 Biography

- Professor of Forensic medicine at the Faculty of Medicine and Pharmacy, of Casablanca, Morocco.
- Professor of Forensic Medicine, at the Medicolegal Institute, of Ibn Rochd university hospital center, of Casablanca, Morocco
- Founder of the Moroccan Society of Forensic Medicine.
- President of the Moroccan Society of Medical Law.
- Chairman of the University Diploma of “Medical law and expertise in medical liability”
- Chairman of the University Diploma of “Clinical forensic medicine”
- Former Assistant at the Legal Medicine center of Charleroi, University of Brussels, Belgium.
- Author of medical law: ethical and legal aspects of patient– doctor relationship Book

7.2 Abstract

ABORTION : RELIGIOUS, ETHICAL AND LEGAL CONSIDERATIONS

In recent years, national-level abortion debates have revived in some countries, including Morocco, which launched an official debate in 2015 to address the growing problem of unsafe abortions.

This essay tackles the topic of abortion from three perspectives: theological, ethical, and legal, which are the key axes on which this discussion articulates.

From a religious standpoint, abortion is frowned upon, with variations ranging from outright prohibition to authorization in some specific and limited instances.

In terms of ethical considerations, the dispute is far from settled, whether it is considered as a matter of determining the embryo's status or as a conflict between the embryo's right to life and the woman's right to control over her own body.

In terms of legislation, different countries' laws exhibit varying degrees of restriction, based on the particularities of their legal systems and the religious or liberal influences of each.

The national debate led in the drafting of a draft law that broadens the legal environment for the practice of voluntary abortion, which is expected to enter into force in the near future.



Professor Helene Yapo Ette

Full Professor at the Universities of CAMES Member States, Abidjan.

8.1 Biography

- Forensic Doctor
- Full Professor at the Universities of CAMES Member States
- Department of Public Health and Specialties
- UFR Medical Sciences of Abidjan
- Felix Houphouet-Boigny University of Abidjan Cocody
- Chief of the Institute of Forensic Medicine of Cote d'Ivoire
- President of the Ivorian Society of Forensic Medicine and Judicial Investigations (SIMIJ)
- Director of the Diploma of Specialized Studies (DES) in Forensic Medicine
- Officer in the Ivorian Order of Merit
- Expert at the Court of Appeal of Abidjan
- 2016 Award of Excellence for Best Senior Healthcare Executive

8.2 Abstract

FORENSIC MEDICINE AND HUMANITARIAN ACTION: CASES OF FORENSIC EXHUMATIONS

Violence is a universal and multifaceted phenomenon. It is generated by national or transnational conflicts; its effects are long-lasting and affect all social groups. Major violence cases have been recorded in the twenty-first century, which have increased the diversity of atrocities committed against populations. Far from being on the margins of these violent and deadly conflicts, the African continent is also experiencing the phenomenon of mass migration.

Facing such migrations and changes in the realm of conflict, and given the ongoing nature of conflicts and associated violence and the impact of all these situations on contemporary societies, the ways and means of resolving them represent real challenges to the human mind, in particular the need for humanistic forensic management of corpses and their families in a way that respects their dignity. This management is the component of a humanitarian action according to a multidisciplinary approach involving forensic sciences (including forensic medicine), anthropology, international humanitarian law, history, sociology... this is specifically the practice of forensic exhumations where the remains of people, most of whom have not yet been identified, must be looked for, found and identified. We will first of all focus on these tasks attributed to exhumations, as their aim is to alleviate the suffering of the affected populations (victims and their families) and to preserve their dignity. Secondly, we will underline that these exhumations require durable and varied capacity building of forensic sciences, as these exhumations can extend over decades.

In Africa in particular, in order to meet the challenges and define the prospects relating to the scale of the violence, it is essential for decision-makers to put in place sufficient material and financial resources to increase the quantity and quality of forensic Sciences skills.



Prof Dr Nermin Adly Mahmoud Hassan

Master Degree, MD Degree in Forensic Medicine and Toxicology Zagazig University – Benha
Professor Forensic Medicine and Clinical Toxicology Faculty of Medicine Zagazig University Egypt

9.1 Biography

Vice Dean of Faculty of Medicine for Community services and Environmental

Prof Dr Nermin Adly, professor of Forensic Medicine and Clinical Toxicology department – Benha faculty of medicine, is also currently the Vice Dean of Faculty of Medicine for Community services and Environmental Development – Benha faculty of medicine, Egypt (November 2020 – till now). She was the Head of Forensic Medicine and Clinical Toxicology department – Benha faculty of medicine (Clinical Department). (Aug.2018 – November 2020) She was also Founder Director of Benha poisoning and addiction control center (BPACC), university Benha hospital, Benha university. 2018–2019

Founder & Director of Benha toxic and drugs lab, Benha faculty of Medicine, Benha university. 2018– 2019

Founder & Director of Benha Medicolegal consulting center (BMCC), Benha faculty of Medicine, Benha university. 2018–2019

Founder & Director of the medical supply's unit, Benha faculty of medicine, Benha University.

In addition she is very active as a member of many scientific organizations and committees including; A member of the research jury of the promotion committees, assistant professor and professor for 13th & 14th runs, A member of European organization for development and peace, A member of the natural poison society, 2004 to present, A member of the scientific research ethics committee at faculty of Medicine, Benha University, 2004, A member of the sharia medical association, shebin el-koum, A member of Egyptian Forensic Medicine society, 2004 , A member of Implementation Team of QAAP (Quality Assurance and Accreditation Project), 2006, A member of Implementation Team of CIQAP, 2008 and sharing in Action Plan design for Benha Faculty of Medicine, presented to CIQAP Project, Management team of Quality Assurance Unit (QAU) at the Faculty of Medicine, Benha University, 2009, A member of management Team of CIQAP, at the Faculty of Medicine, Benha University, 2009 , Responsible for scientific activity Benha Students Scientific Society BSSS Committee, Chairman of the Training Committee of the Quality Unit.

She has arranged and participated in numerous workshops and conferences and has over 23 scientific publications, which discussed several forensic and toxicology topics including ; Toxic effects of paracetamol

on male reproductive system of adult rabbits. International Journal of Pharma and Bio Sciences Volume 4, Issue I, January 2013, Pages 806–821, Correlation between Serum Creatine Phosphokinase and Severity of Acute Organophosphorus Poisoning: A Prospective Clinical Study (2012–2013). IOSR Journal Of Environmental Science, Toxicology And Food Technology (IOSR-JESTFT); Volume 4, Issue 5 (May. – Jun. 2013), PP 18–29. www.iosrjournals.Org.

Also Prof Nermin has participated in forensic and toxicology book publications for undergraduate medicine students including; Handbook of Forensic Medicine: for the 4th year undergraduate students, Benha Faculty of Medicine, 2018–2019. Handbook of toxicology: for the 4th year undergraduate students, Benha Faculty of Medicine, 2018–2019. Practical Forensic Medicine and Toxicology: for the 4th undergraduate students, Benha Faculty of Medicine 2018–2019 and many others.

Her social activities include 46 medical convoys, A decent life initiative, Women's Health Support Initiative.

9.2 Abstract

MEASURING PHOSPHINE IN BOTH POSTMORTEM TISSUES OF ALUMINUM PHOSPHIDE INTOXICATED CORPSES & ASSOCIATED CHRYSOMYA ALBICEPS LARVAE

Aluminum phosphide (ALP) has been extensively used as an economical and effective insecticide, rodenticide, and fumigant. The active ingredient of ALP is phosphine (PH₃), the ease availability of which can lead to mass suicidal poisoning with high mortality. Exposure to PH₃ will give rise to entire damage in the human body. The magnitude of ALP poisoning and its numerous related deaths in man with lack of entomotoxicology screening methods and quantitative methods for this toxin prompted us to undertake this study. Aim of work: The current study aimed to measure phosphine (PH₃) concentrations by a quantifying method in postmortem (PM) specimens (blood, lung, liver, small intestine and 1st & 6th day 3rd instar larvae of chrysomya albiceps) from intoxicated corpses to find a correlation between the PH₃ concentration in PM specimens & larvae to help in the detection of ALP toxicity as a cause of death. Also, this study aims to explore the effects of ALP on C. albiceps life cycle and biomorphological changes to estimate the accurate postmortem interval (PMI). Methodology: This study reviewed 10 chemically confirmed cases were included and the effect of ALP on C. albiceps life cycle through studying the parameters & the time duration of its different stages. Also, phosphine analysis in both PM specimens (blood, lung, liver and small intestine) and (1st & 6th day) 3rd instar C. albiceps larvae using GC– MS. Results: there was significant increase in means values of larval lengths and weights were observed for most measurements at different stages which reared on ALP poisoned tissues comparing to those of the control cases. Also, there was marked acceleration in the average development duration of C. albiceps life cycle stages reared on the studied ALP poisoned cases tissues as comparing to those of the control cases. On the other hand, the method described here for the analysis of PH₃ is rapid, sensitive, and free of all chromatographic interferences. This method provides acceptable selectivity and stability for PH₃ determination. The analyte was found to be linear within the calibration range (0.2 up to 8 g/mL). Conclusion: ALP caused acceleration of the life cycle duration of C. albiceps and changes in the biometric diameters of its larvae. These results can aid in estimating the time and the cause of death. According to GC– MS analysis, the method described here presents a sensitive and selective approach for the quantification of PH₃ at accurate and reliable values within a concentration range of 0.2 – 8 g/mL for forensic applications.



Dr Adnan Abbas

Jordanian Board, forensic specialist Jordanian Medical Council 2001. Evaluation Certificate as Consultant (A) For
Ministry of Doctor Health United Arab Emirates
Director National Institute Of Forensic Medicine Jordan

10.1 Biography

Practical experiences

1991–1992 General Practitioner, in Jordan Army Force.

1992–1994 General Practitioner, and lecturer intermediate university college.

1994–1996 General Practitioner, Jordan ministry of health, head of primary health care, Aqaba, Jordan.

1996: forensic doctor in the national institute of forensic Medicine

2001: specialist of Forensic medicine (Eligible Boarder)

2002–2006: specialist of forensic doctor, in Qatar ministry of interior.

2006– 2007: Head of Death section Preventive medicine Abu Dhabi.

2007–2012 Head of Mortuary Services Abu Dhabi Health Authority

2012up to date Amman Jordan Ministry of Heath forensic doctor in National institute of forensic medicine

2019 Director National Institute Of Forensic Medicine Jordan

scientific skills :

Medico legal Examination of dead cases (Scene of death , Autopsy)

Examination of living cases and determination of disabilities.

Cases of sexual offences , (rape ,buggering , sodomy)

Consultant in Qatar Courts, for cases of medical Responsibilities.

Lecturer forensic medicine for courses in Qatar Police institute.

Lecturer forensic Medicine for courses in legal Judicial studies Center, Doha, Qatar

Lecturer forensic medicine for courses in Jordan police institute

Member of disabilities committee for fitness and age Estimation,

Hamid Medical Corporation.

Participation in international conferences :

- Reconstruction of face soft tissue in Remagen / Germany March 2005.
- The first Jordanian, international conference on forensic sciences and medicine Amman / Jordan, Sept, 2006.
- The 2nd international congress of forensic radiology Damascus/Syria July 2007.
- New techniques of Embalming, Paris/France June 2008.

- Many workshops related to customer services and art of leadership 2010– 2011.
- Contribute in developing laws that regulate the procedures and conditions of organizing burial and Cemeteries in Abu Dhabi Emirates.

10.2 Abstract

Servant Child abuse

This kind of abuse is noticed clearly in modern cities like Amman, Beirut and most of the gulf area where the mother leaves the child after birth under the care of nannies due to continue her career (financial) or sometimes spoiled rich women who have the ability to bring servants.

This exposes the child to different kinds of abuse starting from lack of parent emotional or sexual , physical abuse Due to the government policies many servant nationalities work in Amman as (Philippine , Sri Lanka , Bangladesh , Ethiopia Kenya etc.) , each of these nationalities have their own attitude different modes, skin color , way of dressing and different religions , accent this exposes our children to learn from them some bad habits not applicable in our local society The most types of child servant abuse could be classified as follows:-

- Physical abuse:- Shaking enfant Kicking him Throwing the child from high tower
- Sexual abuse : as what happened in Ras Al Khaimah when 15 years old boy made sexual intercourse with 19 years old servant and at the end she got pregnant and get a boy , could be imagined what will happen to this family?
- Negligent and emotional abuse My point of view and Recommendations:-

To solve this problem we should :

-Increase the Postnatal leave at least from (6–9)months this will encourage and enhance the relation between the mother and her baby.

- Return back to the old way of family chain (big family) in which leaving the child with the grandmother, the mother in law and that makes the family bond stronger.

Do not let the servant to make a shower or take the kid to the bathroom mostly



Prof Dr Carlos Cuadrado

**Doctorates in Neuropsychiatry and Psychology, diploma in Forensic Psychology,
Director of the Department of Forensic Medicine at the Medical Health Commission, FEMECA Spain**

II.I Biography

Vice president of the Medical Health Commission, FEMECA Spain

Dr. Carlos Cuadrado stands as a distinguished professional at the crossroads of neuropsychiatry and forensic sciences, with a career defined by his deep commitment to research, education, and leadership within international medical and scientific institutions.

As a Professor in Forensic Sciences, Dr. Cuadrado wields significant influence as the Director of the Department of Forensic Medicine at the Medical Health Commission, spearheading critical investigations in this realm. His leadership extends to his role as International Vice President of the same commission, advocating for global standards of medical excellence and health.

Moreover, he presides over the Professional Association of Criminologists in Spain, showcasing his dedication to profound analysis of human behavior. A member of the Royal Society of Medicine in the UK and the British Psychological Society, his contributions to medical and psychological research are highly regarded.

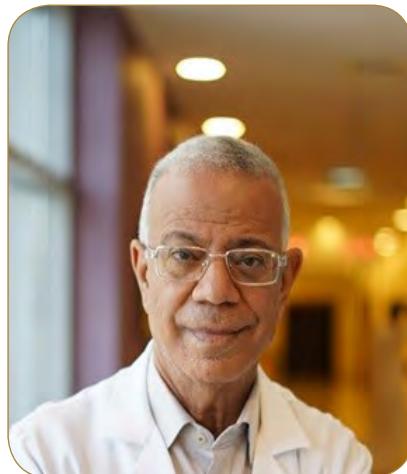
Dr. Cuadrado, holding dual Doctorates in Neuropsychiatry and Psychology, boasts specializations in Forensic Medicine and Emergency Medical Services. His educational passion shines through in numerous master's degrees and diplomas spanning fields like Medical Expertise, Forensic Psychology, and Pediatric Neurology.

His versatility is evident in master's degrees covering Neuropsychological Rehabilitation, Aesthetic Medicine, and Emergency Toxicology. With a Law degree and a diploma as a Private Detective, he seamlessly bridges the realms of science and law.

II.2 Abstract

Exploring the Minds of Virtual Offenders: A Forensic Approach to Mental Health

This study delves into the intricate interplay between mental health and virtual criminal behaviour through a forensic lens. As the digital landscape continues to evolve, understanding the psychological underpinnings of those who engage in criminal activities in virtual environments becomes paramount. This research explores the motivations, psychopathology, and sociocultural factors that drive individuals to commit virtual offenses. By employing forensic techniques and psychological assessments, it seeks to unravel the complex nexus between mental health and cybercrime, shedding light on the cognitive processes and vulnerabilities that lead individuals into the realm of virtual offending. Ultimately, this study aims to inform policy, prevention, and intervention strategies by providing a comprehensive understanding of the minds of virtual offenders.



Prof Dr Talaat Matar

M.D .PHD in psychiatry ,Cairo University ,1997

Professor of Psychiatry , RAK, medical and health science university Consultant psychiatrist, RAK hospital , Ras Al Khaimah ,UAE

12.I Biography

MBChB ,Tanta University ,1977

Master Degree in Neuropsychiatry ,Cairo university 1983

M.D .PHD in psychiatry ,Cairo University ,1997

Member of the editorial board of world journal of psychiatry(the Arabic version)

Member of the world psychiatric association

Translated the text book: "Cognitive Psychotherapy, Basic and Beyond"

Translated the book" the Power of Emotions"

Translated the Book "Beck solution for Diet" of Judith Beck

Author of a book in philosophy " Thus Spoke the Christ "

Member in editorial board of the Arabic version of (Journal of world Psychiatry)

Member in the editorial board of the journal (Arabic and world literature)

Author of a book " understanding psychiatry for medical students" (in press)

Has many publications in international and regional journals

More than 150 presentations in different national and international conferences

Participated in the field studies of ICD-10 ,ICD-II, and DSM-5.

I2.2 Abstract

Legal Responsibility of an Offense Committed by a Mentally Ill Individual: An Overview

This presentation provides an overview of the legal responsibility associated with offenses committed by mentally ill individuals. It examines the complex and nuanced relationship between mental illness and legal culpability, shedding light on the various legal frameworks that exist to determine the responsibility of individuals with offensive mental health conditions.

The presentation will cover the concepts related to mental illness and legal responsibility. It explores the distinction between mental illness as a mitigating factor and the insanity defense, highlighting the differences in legal standards and their implications. Additionally, the presentation addresses the societal and ethical considerations surrounding the legal responsibility of mentally ill individuals. It touches upon the balance between public safety and the rights of mentally ill offenders. It will therefore discuss the concept of partial responsibility.



Ms Caroline Ward

B.A. (Mod), H.Dip.Ed. C.G.C., H.Dip. HC (Risk Management), Dip. Med. Studs., M.I.A.C.P.
Senior Counsellor in University College Dublin, a member of the Irish Association of Counselling
and Psychotherapy

I3.1 Biography

Caroline Ward studied Modern Languages in Trinity College Dublin, University of Dublin and qualified as a secondary level school teacher from TCD, University of Dublin. She completed post graduate studies in University College Dublin and became an accredited Counsellor and Psychotherapist. She then completed post graduate studies in Health Care Risk Management and in Mediation as an alternative dispute resolution. She is accredited as a foreign Language Tourist Guide, Bord Failte Ireland and did seasonal work as a student. In her early professional career, she worked as a secondary school teacher in Castleknock College, Dublin progressing to Counsellor in The National Training College Roslyn Park, part of the then Rehabilitation Institute in Ireland. In 2003 she took up the position as Counsellor in University College Dublin, a Global University with 29,000 students, in the Student Health Service where she works as a Senior Counsellor to date.

Caroline was an Occasional Lecturer in the Health Care Risk Management Course in University College Dublin. She was also a Module Co-ordinator and Lecturer on the MSc Educational Guidance and Counselling Course in the School of Education, Trinity College Dublin. She served as a trainer and Supervisor in the Irish Society for the Prevention of Cruelty to Children's Childline. She was a registered counsellor on the Irish College of General Practitioners' health support services for medical doctors and served on the steering committee of that service representing Counsellors. She has given lectures to health care professionals and legal professionals alike. She lectures presently to University College Dublin medical students as well as being an educator in the University College Dublin Medical School's Care in Medicine Course. Caroline has presented at International Conferences, most recently in Brno in the Czech Republic and in Padua, Italy, on Art and Psychotherapy, a particular interest to her. She liaises with her Counselling colleagues in the Royal College of Surgeons University College Dublin Medical Campus (RUMC) in Penang, Malaysia and has a special interest in Asian Culture and multicultural issues arising in medical education and counselling psychotherapy practice.

Caroline is a member of the Irish Association of Counselling and Psychotherapy, having served on their Executive Committee and the Complaints and Ethics Committee.

13.2 Abstract

Psychological counselling in the assessment, therapy and recovery of adult survivors of child abuse within healthcare and medico-legal settings

Child abuse is categorised into four different types: neglect, emotional abuse, physical abuse and sexual abuse. This paper will look at the broad incidence of child abuse, its recognition, how it may manifest in later life if not previously reported and, in particular, how the adult survivor presents and is assessed and treated. Counselling takes place in a medico-legal framework with complex rules of healthcare confidentiality and mandatory reporting which may sometimes conflict with the immediate and longer term healthcare needs of the individual. Societal values may also give rise to challenges for the patient client and counsellor but counselling in turn may inform those societal values. This presentation reviews counselling in a multi-disciplinary team of counsellors, doctors and nurses with psychiatric medical support in a global university setting with distressed students from a wide range of international, cultural, ethnic and religious backgrounds. Such diversity must be respected by the counsellor. It is a professional challenge to ensure it is applied to each individual client and patient's needs and to the society in which it is set. The paper will examine the role of counselling and psychotherapy to protect and heal victims of historical child abuse and those suffering from trauma. How does counselling work to overcome such trauma, unlocking the person's human potential? What are the creative possibilities of counselling? Counselling can be a positive force for society based on compassion, integrity and justice within the broad family of medicine, including forensic medicine and science, in the aftermath and assessment of trauma caused by abuse.



Prof Dr Eman El-Zahed

MD : Forensic Medicine and Clinical Toxicology

Professor Forensic Medicine and Clinical Toxicology Department Faculty of Medicine Zagazig University Egypt

I4.1 Biography

Professor Eman EL Zahed became a professor of Forensic Medicine and Clinical Toxicology, Zagazig University Egypt from 2005, and from May 2013 –2019 was the head of Forensic Medicine and Clinical Toxicology Department, Zagazig University.

She has worked as a Medicolegal Consultant for:

Ministry of interior (Egypt)– Medical service)

Al salam International Hospitals

Wady El Nile hospital (manager assistance)

Dar El Fouad Hospital

Andalusia group Hospitals

SGH Egypt

Air force specialized hospital

UNESCO Trainer in Bioethics

Professor Eman is also Chief Editor of Zagazig Forensic Medicine And Clinical Toxicology Journal.

She also is a Forensic assessor with the EGAC Egyptian accreditation body

Dr Eman is also an Instructor in Disaster Management Project – HEEP– Faculty of Medicine– Zagazig University, in addition she is the designer and instructor of diploma program of medical crises and disasters and the training of various community parties (Doctors – Pharmacists – Nursing) from Egypt and the Arab countries (General Union in Cairo Work Experience Interest: Forensic Medicine – Bioethics Quality – Medical education).

14.2 Abstract

Do-Not-Resuscitate (DNR) physician orders: medicolegal consequence and ethical consideration

Recently physicians allover the world and in Egypt too were suffering from an increase in malpractice claims. Physicians in the intensive care unit or code blue team face a myriad of ethical dilemmas involving end-of-life care, yet they receive only minimal training about their jurisprudential obligations, and misconceptions about legal responsibilities. In particular, significant uncertainty exists among critical care physicians as to ethical, legal and medicolegal obligations for terminally ill patients. Life sustaining treatment is defined as any medical intervention, technology, procedure or medication that is administered to a patient in order to forestall the moment of death, whether or not the treatment is intended to affect the underlying life threatening disease or biological process. Decisions to withhold life-sustaining treatment are made in two different situations. In the first, treatment is withheld from an actively dying person whose existing condition indicates that effective cardiopulmonary resuscitation (CPR) is unlikely to be successful or a successful CPR is likely to be followed by a length and quality of life that would not be in best interests of patient to sustain. In the second, the decision is hypothetical, whereby the withholding of treatment is made in advance, in a situation where a life threatening condition may eventuate. End-of-life care dilemmas requires careful analysis, an understanding of basic ethical and legal principles and perspectives, and access to reliable consultants. When a patient suffers sudden cardiopulmonary arrest usually, the decision whether or not to resuscitate depends upon the physician's professional appraisal of the likelihood of successfully restoring cardiopulmonary functioning of a particular patient versus the probable futility of a resuscitative attempt. However, ethical, legal and sometimes financial implications must be taken into account. The issue of resuscitation raises fundamental ethical questions about autonomy (patient's wishes and choices), beneficence (appropriate decision making), non-maleficence (harm avoidance) and justice (allocation of limited resources). Medico legal aspects of CPR deal with issues such as competency of an individual in decision-making, standards and processes of decision-making and dilemmas in instituting or withholding CPR. No code is a reference to the use of code as jargon for calling in a Code Blue™ to alert a hospital's resuscitation team. Do not resuscitate (DNR), no code or allow natural death is a legal order written either in the hospital or on a legal form to withhold cardiopulmonary resuscitation (CPR) or advanced cardiac life support (ACLS), in respect of the wishes of a patient. Doctors are morally and ethically obliged to provide good prognostication and initiate discussions around treatment options, benefits of life prolonging treatment, and resuscitation. This medicolegal issue was studied as regard the causes of the claims in 8 cases of DNR, with allegation of medical malpractice and its medicolegal aspect. The Cases were investigated as regards the circumstantial evidence, the cause of action to analyze the aspects of this medico legal problem. Not for resuscitation in Egypt and some other countries still remains an abstract concept with no clear guidelines or legal frame work. Cardiopulmonary resuscitation is a complex medical intervention which is often used in hospitalized patients and usually guided by medical decision making rather than patient-directed choices. Patient autonomy still remains a weak concept and relatives are expected to make this big decision in a short time and at a time of great emotional distress. This article outlines concepts around ethics and medico legal aspects of not for resuscitation, especially in Egypt. As withholding and withdrawing life support amounts to abetment of suicide or crime that is a punishable offence according to Egyptian Penal Code. And addressed by the Law as commission. Until such laws come into effect patient autonomy, family wishes and medical decision making at end of life will still remain guided by the Egyptian Penal Code.



Dr Maha Saeed Al ali

Dubai Academic Healthcare Corporation DAHC Al Jalila Childrens Speciality Hospital

15.1 Biography

Dr. Maha Saeed Al Ali is a senior fellow at Al Jalila Children's Specialty Hospital, specializing in Child and Adolescent Psychiatry. She is a board certified psychiatrist and holds a Clinical Psychology Diploma from UAEU. Dr. Al Ali is highly regarded in the field of mental health and is actively involved in esteemed organizations such as the Emirates Society of Mental Health, IACAPAP, and WAIMH. Her areas of interests are neuropsychiatry and infant mental health.

15.2 Abstract

From Innocence to Offense: A Look into Juvenile Criminal Behavior

Juvenile criminal behavior refers to delinquent acts committed by individuals who are under the age of 18. The presentation explores the various aspects of juvenile criminal behavior, including its causes, impact, and interventions. It will also include risk factors and methods of how to prevent such factors from developing in young people.



Dr. Omnia Ibrahim Mohamed Hassanein
PhD / Associate Professor
RAK Medical and Health Sciences University

I6.I Biography

Professional Experience: An associate professor of English in RAK Medical & Health Sciences University since 2018 teaching English, English for Specific Purposes and Communication skills in the health sciences field
Have been in the academic field since 1993 at Sadat Academy for Management Sciences in Cairo- Egypt teaching English for Business and communication skills in business
An overall experience of more than 25 years in Academic teaching.

Educational Qualifications:

Bachelors in English Language and Literature with an Honors degree (1991)

Masters in English Literature with a degree of Excellent (1996)

PHD in English Literature with First Class Honors degree (2003)

Have published researches in academic journals and the Web of Science. Researches are mostly related to English language , Communication skills , teaching English methodologies and assessments as well as, English as a second language and English for Specific Purposes (ESP)

Have attended and conducted seminars, conferences and workshops in various fields related to teaching, medical education and communication skills.

16.2 Abstract

Forensic Investigations and Language: A Critical Review of Forensic linguistics and Communication Skills

Forensic investigations are conducted to gather evidence and information related to a crime or an incident. Language, being one of the most important means of communication, plays a crucial role in forensic investigations. The way a person speaks, writes or communicates can provide valuable insights into their identity, behavior and motives. The analysis of language in the context of forensic investigations is known as forensic linguistics. This paper aims to review the concept of forensic linguistics and its application in forensic investigations. Forensic linguistics is an interdisciplinary field that combines linguistics, psychology, and law to identify the meaning and usage of language in legal settings. It involves the analysis of spoken or written language to provide evidence in legal cases. Forensic linguistics can be used in various contexts including, but not limited to, criminal investigations, dispute resolution, psychological evaluation, forgery .etc.

The role of language in forensic investigations is an essential tool for communication as it can provide significant evidence and information about a perpetrator. For example forensic linguistics can be used to determine if the same person wrote two different documents such as a letter and a ransom note . It can also be used to identify the geographic origin of a speaker based on their dialect or accent. It can also analyze digital communication such as emails or text messages. Forensic linguistics is also employed in voice analysis, written communication analysis, critical discourse analysis that is used to identify biases and prejudices in language , deception detection language that is used to determine whether a person is lying or telling the truth. Yet, one of the significant challenges in analyzing language in forensic investigations is the lack of standardization in language use. People use language in different ways and for various purposes and therefore a specific language feature that may be indicative of a particular characteristic in one context may not be true in another.

There are many examples of communicative and language barriers that can impact forensic investigations; like misinterpretation of statements, lack of rapport , bias and false preconceptions, miscommunication and misunderstanding during interviews, inability to decode non verbal cues, translation errors and inaccurate translations, lack of access to information, language proficiency of forensic professionals, and cultural differences. More problems can arise due to language barriers like medical errors in examination of criminals mental or physical state. Moreover, in legal proceedings, language barriers can prevent people from understanding their legal rights and the legal system this can result in wrongful convictions ,denial of legal assistance and unequal treatment under the law.

These are just few examples of the potential impacts of language and communicative barriers in forensic investigations. It is important for investigators to consider how language barriers and lack of communication skills like active listening , empathy , understanding nonverbal communication and cultural awareness may impact their work and to take steps to overcome these barriers in a sensitive and efficient manner. Further research and development are required to establish forensic linguistics and communication skills as reliable tools in forensic investigations.

Second Day 31/10/2023 **HALL (B)**

Workshop

09:00–10:50AM

Dr. Evi Untoro Head of Department Forensic Medicine, Faculty of Medicine, University of Trisakti, Jakarta, Indonesia.

Opening and introduction of INTERPOL DVI GUIDE Form on AM (Ante Mortem) – PM (Post Mortem) Data Collection, Coordination &Repatriation System



Talk

9:00–10:50 AM

Prof. Dr. Emilio Nuzzolese President and Founder of the Civil Protection Association Dental Team DVI Europe

Disaster Scene, DVI Dental Team, Introduction On INTERPOL DVI Forms of Dental, Dental Autopsy (E Nuzzolese)



COFFEE BREAK

Workshop

11:00–12:50PM

Dr. Hemlata Pandey Lecturer, Centre for Forensic and Legal Medicine and Dentistry, School of Dentistry, University of Dundee, Scotland, UK

AM & PM: Collection & handling of Skeletonized / Charred / Mutilated human remains, dental anthropology and profiling



Workshop

11:00–12:50PM

Dr. Evi Untoro Head of Department Forensic Medicine, Faculty of Medicine, University of Trisakti, Jakarta, Indonesia

AM & PM: Forensic Pathology, Forensic Anthropology, Forensic Genetics/DNA, Lab Collections



COFFEE BREAK



Workshop

1:00–02:40PM

RECONCILIATION on the 6 cases



Workshop

01:00–02:40PM

Dr. Ranjeet Kr Singh Director SIFS INDIA Forensic Lab

PM: Finger Printing with lecture in practical handeling



Second Day 31/10/2023 HALL (C)

Talk

09:00–09:20AM

Associate Prof Dr Ramlah Naz Dow University of Health Sciences, Pakistan

Primary Metabolite Screening of Microbes Isolated from Macacca mulatta Corpse



Talk

09:20–09:40 AM

Dr Mohamed Salah Abdelrahman Forensic Medicine Specialist and the Head of the Medical Statistics Sector, in the Quality and Monitoring Performance Outcomes, Department at Riyadh Forensic Medicine Services Centre, KSA.



Suicidal Firearm Death Using Manipulated Blank Gun with Homemade Bullets: Case Review

Workshop

09:40–10:00 AM

Pr. Hind Abouzahir Hassan II university, Faculty of Medicine of casablanca

Case report on a suicide attempt using glargine insulin



Workshop

10:00–10:20 AM

Dr. Mahrous Abdelbasset Ibrahim Associate Professor, College of Medicine, Jouf University, Saudi Arabia

The usefulness of Maxillary and Frontal sinuses in sex identification by Multidetector Computed Tomography

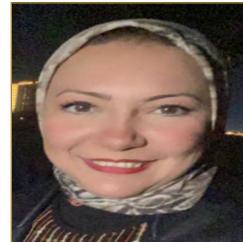


Talk

10:20–10:40AM

DR. Amina Samy Abou Hiba Medical examiner Forensic medicine department of Ras Al-khaimah, United Arab of Emirates.

Buried body with multiple blunt trauma: case study



DISCUSSION 10:40– 10:50 AM

COFFEE BREAK

Talk

II:00–II:25AM

Nikolaos Kalantzis Forensic Handwriting and Document Examiner

Setting up laboratories to deal with & take advantage of DCS technology



Workshop

II:25–II:50AM

Mona Mohamed Awny Associate Professor of Forensic Medicine and Toxicology, Faculty of Medicine, Suez Canal University, Egypt

Forensic Study of The Effect of Hemodialysis on Handwriting Characteristics



Workshop

II:50–I2:15PM

Assistant Prof. Dr. Ahmed Saad Gouhar Assistant Professor, Consultant, Forensic Sciences Dep., College of Criminal Justice, NAUSS

New Trend in security Travel Documents



Talk

12:15–12:40PM

Dr. Mohamed Awadalla Forgery Detection Expert Forensic Lab; RAK police UAE

Forensic view; Polymer banknotes against counterfeiting

**DISCUSSION 12:40 – 12:50PM****COFFEE BREAK****Talk**

13:00–13:20PM

Pr.Ag Redouene Benazzouz Associate Professor, Interim Head of the Pneumology Department at the Laghouat Public Hospital

Risk Factors for Severity of Two-Wheeled Vehicle Accidents and their Medico-legal Aspects

**Talk**

13:20–13:40PM

Dr Mohammed Nour El Din Ahmed Anas forensic medical examiner Worked in directorate of forensic science evidence ,public prosecution , kingdom of Bahrain

Airbag Fatality: A Case Report From the Kingdom of Bahrain

**Talk**

13:00–13:20PM

Associate Prof Dr Osama Elserafy King Fahd Security College (KSA)

Advancements in Forensic Investigation of Bodies Retrieved from Water



Talk

14:00–14:20 PM

**Dr Abdul Kareem Al Mansouri Forensic Medicine doctor,
Basra , Iraq**

**حالات الوفيات التي تحدث عند المرأة الحامل
وخلال الولادة وبعدتها**



Talk

14:20–14:40 PM

**Dr. Hafiz Ahmad Associate Professor & Clinical
Microbiologist Department of Medical Microbiology and
Immunology RAK College of Medical Sciences, Ras Al
Khaimah, UAE**

**Technical validation and evaluation of MiSeqFGx
Forensic phenotyping (iMAGEN assay) and ancestry
prediction assays in the UAE**



DISCUSSION 4:40 – 4:50 PM

LUNCH





DR. Ramlah Naz

MBBS, DMJ, DHPE, MPhil, Dip. Family Medicine, (FCPS Forensic)
Dow University of Health Sciences, Pakistan

O.I. Biography

Dr. Ramlah Naz is an accomplished Associate Professor of Forensic Medicine at Dow University of Health Sciences, Karachi, Pakistan. With over 15 years of experience in forensic medicine. She is a committed educator and mentor for aspiring medical professionals with her contributions to scientific publications and conferences, including authoring and co-authoring over more than 15 scientific papers which signifies her passion for research. As Chairperson of the Department of Forensic Medicine at Dow University of Health Sciences, Karachi, experienced Program Director in Diploma in Medical Jurisprudence, former Syndicate member (DUHS), former Vice Principal at Dow International Medical College and a member of different councils, boards, and societies within the institution, Dr. Naz is committed to advancing forensic medicine through academic rigor and practical experiences; she is dedicated educator in the field of Forensic Medicine and is passionate about providing comprehensive undergraduate and postgraduate instructions. Additionally, honored to serve as a Forensic Medicine Specialist for Pakistan Air Force's Aerospace Medicine course; committed to fostering academic excellence and nurturing future leaders in the field. Furthermore, Dr. Naz's involvement as a member of the Special Medical Board at the Services Hospital Karachi showcases her contribution to matters of medico-legal importance in the province of Sindh. Her respected position in the professional landscape is further solidified by her active membership in the Pakistan Society of Forensic Medicine and Toxicology. In conclusion, Dr. Ramlah Naz emerges as a highly accomplished and dedicated force in the field of forensic medicine. With her commitment to education, notable research contributions, and participation in prestigious medical organizations, Dr. Naz is a respected leader in her field who continues to make meaningful contributions to the advancement of forensic medicine.

O.I. Abstract

Isolation and Primary Metabolite Screening of Microbes Isolated from Macacca mulatta Corpse

As a branch of applied forensic medicine, microbial forensics uses the diversity of microorganisms as a marker for several forensic characteristics, such as the time of death, location, and environmental conditions. It is believed that due to extensive putrefaction, microbes inhabiting corpses remain metabolically active.

Aims of the study included examining the diversity of the bacterial flora using microscopic characteristics on the bodies of Macacca mullata, screening of the isolated microbes for their capability of metabolism, identifying and fingerprinting the metabolically active ones.

: It involved isolating microbes from the corpse and nearby soil samples of two-year-old Macacca mullata. The microbes were cultured using nutrient agar, heart infusion agar, and blood agar. Microbial colonies were examined for their microscopic characteristics, including Gram staining, shape, and arrangement. Enzyme screenings for protease, lipase, amylase, and-galactosidase production were conducted. Based on their metabolic potential, five bacterial strains were selected for molecular identification using 16srDNA gene amplification and DNA sequencing followed by Fingerprinting of the selected strains for the proteomic and genomic diversity.

Study revealed, 7.27% of the organisms were Gram negative bacilli and 72.73% were Gram-positive cocci. While compared to soil-based bacteria, those from the corpse showed more metabolic activity. The isolates could be distinguished using SDS-PAGE of the whole bacterial lysate. *Vibro fluvialis* was found to be the isolate with the highest metabolic activity. Genomic fingerprinting revealed genetic variation among the bacterial isolates.

Present investigation provides insights into the flora present in primate corpses. The study's scope could be expanded to include corpses buried in different climatic conditions.



Dr Mohamed Salah Abdelrahman

Master's Degree in Forensic Medicine and Toxicology.

Forensic Medicine Specialist and the Head of the Medical Statistics Sector, in the Quality and Monitoring Performance Outcomes, Department at Riyadh Forensic Medicine Services Centre, KSA.

2.1 Biography

Dr. Mohamed Abdelrahman is a forensic specialist in the Ministry of Health, Kingdom of Saudi Arabia. He joined Riyadh Forensic Medicine Services Centre in 2021 until now, where he currently serving as a Forensic Medicine Specialist and the Head of the Medical Statistics Sector, in the Quality and Monitoring Performance Outcomes.

In addition, Dr. Abdelrahman has an M.Sc. degree in Forensic Medicine and toxicology from Zagazig University in Egypt 2017, a Diploma in the detection of crime by the new scientific methods in NCSCR (National Centre for Social and Criminological Research) 2013 | EGYPT, a Diploma in Migration Governance – International Organization for Migration American University in Cairo, 2019.

He had the honor to work as a medico–legal examiner and member of the technical office of the Egyptian chief medical examiner in the Egyptian Forensic Medicine Authority from 2017 to 2021 in the Egyptian Ministry of Justice from (2009 to 2021). In addition, he worked as a forensic specialist in the Central Administration of Forensic Medical Laboratories in Cairo from 2009 to 2013; in addition, he worked as a medico–legal examiner in the autopsy center in Cairo from 2013 to 2017.

Moreover, Dr. Abdelrahman has many scientific contributions and publications in the field of Forensic medicine, and who presented at many reputable conferences, not only, the Fifth International Forensic Conference (eye of Justice) in Cairo, Egypt, (IAFS, 2017) in Toronto, Canada.

Dr Abdelrahman had participated in many important forensic events in Egypt as he was the leader of the Egyptian forensic team that participated in 2 weeks mission in cooperation with the French forensic team for recovery, documentation, identification, and management of the dead of Egyptian passenger plane (Flight MS804), which brought down in Egypt's coasts near Alexandria in 2016,

Moreover, he participates as a trainer in the forensic field, gender–based violence, and sexual assault cases under the supervision of the National Council for Women, for prosecutors, police officers, lawyers, physicians, and medical examiners.

2.2 Abstract

Suicidal Firearm Death Using Manipulated Blank Gun with Homemade Bullets: Case Review

Modified blank gun and homemade bullets are illegal, this is a case of suicidal firearm injury using a manipulated sound gun with a trading name Ekol-Tuna ammoniated with homemade 8– mm bullets. The body of a 43–year–old businessman was found in the basement floor of a building, he killed himself with a modified firearm capable of accommodating and firing 8mm non–rifle ammunition after opening the normally closed barrel of this type of weapons.

Suicide by a modified sound gun and a handmade bullet by removing the internal ridge of the barrel and ammoniated with handmade modified bullets 8mm caliber, Data collected during the investigation, crime scene investigation and autopsy should be verified carefully to sidestep missing important information that can disclose a suspected manner of death related to the event. In such a case, the forensic pathologist plays an important role in the assessment and determination of the various factors related to the medical and legal community.



Prof Hind Abouzahir

Hassan II university, Faculty of Medicine of casablanca

3.1 Biography

Dr. Hind ABOUZAHIR graduated from Public Medical University, she finished Forensic Residency training at the Medico-legal Institute, and became specialist doctor of Forensic Medicine. She obtained her PhD degree and became Assistant Professor of Forensic Medicine at Casablanca Medical University. Trained on the management of dead bodies and the identification of victims of mass disaster at the African School of Humanitarian Action, and autopsy practice at the Berlin Institute of Forensic Medicine and Forensic Sciences.

Corresponding International member of National association of medical examiner.

Participated as keynote speaker in many congresses and conferences.

She have many published papers in reputed journals.

O.I.Abstract

Case report on a suicide attempt using glargine insulin

Insulin glargine is a long-acting insulin analog that produces its hypoglycemic active metabolite MI (2IA-Gly-insulin) after enzymatic cleavage of the arginine pair of the chain. All documented cases of overdose have shown just MI concentrations, with insulin glargine either not present or below the limit of quantification.

This case illustrates a suicide using insulin in non-diabetic adolescent which is new way to commit suicide among young.

This case study describes the suicide of a non-diabetic young adolescent who injected herself with insulin glargine and whose blood had a lethal concentration of the parent molecule. Insulin glargine concentrations were determined and differentiated from human insulin and other synthetic analogs using liquid chromatography coupled to high-resolution mass spectrometry (Waters XEVO G2-XS QToF) with extraction following precipitation in the presence of bovine insulin (internal standard), with a mixture of acetonitrile/methanol +1% formic acid, and purification on solid phase extraction cartridges C18. The blood sample showed an extremely high quantity of glargine insulin (1.06 mg/L). The metabolite couldn't be dosed because of how hard it was to get a pure standard of MI. Variability in the rate of conversion to metabolite between individuals explains the first-reported presence of the parent molecule. Insulin glargine may be found in the body since it is administered intravenously rather than subcutaneously. Last but not least, the administered dose might have been too high, rendering the proteolytic enzymes useless for MI conversion.

This case illustrates the severe morbidity that can result from hypoglycemia. It also provides examples of hypothetical dynamics involved in suicidal behavior.



Associate Prof. Mahrous Ibrahim

MD

Associate Professor, College of Medicine, Jouf University, Saudi Arabia .

4.1 Biography

Dr. Mahrous Abdelbasset holds a MD in Forensic Medicine and Toxicology and is currently holding the position of Associate Professor at the Faculty of Medicine – Suez Canal University , Egypt & the College of Medicine – Jouf University in Saudi Arabia. He is the head of the Quality and Academic Accreditation Unit at the College of Medicine, Jouf University & the program accreditation teams. He is a certified Associate Trainers (AT)–National Center for Faculty and leadership Development (NCFLD): Middle East and North Africa headquarters of the International Board of Certified trainer (IBCT).

He has many scientific publications in international journals and periodicals covering forensic medicine, anthropology and clinical and experimental toxicology. He is a reviewer in a number of specialized forensic and Toxicology international journals.

He attended many international conferences specialized in forensic Medicine and sciences, in which he presented his latest research.

He is a member of the Arab Union of Forensic Medicine and Clinical Toxicology (AUFT) and Member of the Arab Society for Forensic Sciences and Forensic Medicine (ASFSFM).

4.2 Abstract

The usefulness of Maxillary and Frontal sinuses in sex identification by Multidetector Computed Tomography

Sex determination of unidentified human remains is a crucial part of forensic medicine, as it is not always possible to obtain a whole intact skeleton for analysis. Objective: to assess the reliability of frontal and maxillary sinuses measurements for the identification of sex using Multidetector CT (MDCT) images in Egyptian sample. Subjects and methods: The study was carried out on 100 individuals (50 males and 50 females) aged 21–57 years. Eight frontal and maxillary sinuses measurements were assessed using MDCT scanning. The eight variables were subjected to statistical analysis, and sex was detected using the significant measurements in the discriminant functional analysis. Results: The findings showed significant differences between males and females regarding the right and left cephalo-caudal measurements, and the size and transverse measurements of the left maxillary sinus ($p<0.5$). All measurements in frontal sinuses were found to be significantly different between both sexes. The highest accuracy rate for sex determination was found by using transverse measurement of left maxillary sinuses in male; and size of the left frontal sinuses in female (68%, 80%, respectively). The study depicted that the overall correct predictive accuracy was 80% in males and 88 % in females using the measurements of the maxillary sinuses. The frontal sinuses showed the best overall correct predictive accuracy which was 100% in both males and females. Conclusion: Left transverse, right and left cephalo-caudal measurements, and size of the left maxillary sinuses detected by MDCT and all variables in frontal sinuses have useful potentials to support sex determination among Egyptians.



DR. Amina Samy Abou Hiba

Master degree of forensic medicine and toxicology

Medical examiner Forensic medicine department of Ras Al-khaimah, United Arab of Emirates.

5.1 Biography

Bachelor degree of medicine and surgery from the faculty of medicine of Qasr Al Ainy, Cairo university, Egypt. Master degree of forensic medicine and toxicology from the faculty of medicine, Ain Shams University, Egypt. Currently completing the studies to get MD degree in the forensic medicine in the faculty of medicine, Port Said University, Egypt. Over 14 years of experience as a medical examiner and a head of forensic medicine department of Port Said and North Sinai governorates in Egypt and as a senior medical examiner in the forensic medicine department of Ras Alkhaima, United Arab Of Emirates.

5.2 Abstract

A case study of a buried body with multiple sharp blunt force injuries

We report a homicidal case of a male victim in the fifth decade who was murdered and buried, the victim sustained multiple injuries of sharp blunt force trauma in origin, and was tied and buried in a mountainous area, when we recovered the body, the corpse was in a state of putrefaction, autopsy was performed to reveal the pattern of injuries and the cause of death.



Nikolaos Kalantzis

BSc Physics, MFSSoc, FSSocDip, PgD Forensic Science
Forensic Handwriting and Document Examiner

6.1 Biography

MSc Questioned Documents, Research Fellow Staffordshire University

Member of the International Forensic Science Council of Dubai (UAE)

Assessor for the Chartered Society of Forensic Science (UK)

Chartoularios P.C. Laboratory of Questioned Document Studies

Nikolaos (Niko) Kalantzis has a BSc in Physics, a PgD in Forensic Science & an MSc in Questioned Documents and a he holds a diploma in Questioned Documents (FSSocDip) from the Chartered Society of Forensic Science of which he is a Professional Member and has served as an Assessor. He works both for the courts of Athens and Piraeus, he is a registered expert with the Nederlands Register GrechtelijkDeskundigen (NRGD) and the International Criminal Court at the Hagheue, and also handles private cases as an examiner and manager of Chartoularios Institute, an associate member of the European Network of Forensic Handwriting Experts (ENFHEX part of ENFSI). Niko was elected in the Steering Committee of ENFHEX (R&D Liaison) in September 2019 & reelected in 2022.

Niko served as Visiting Research Fellow from 2008 to 2018 and since 2018 he is a researcher with Staffordshire University, participating in experiments and research projects as well as delivering lectures at undergraduate and postgraduate levels. The main area of research for the last years is Digitally Captured Signatures (biometric signatures) and he has been delivering workshops and short courses to Universities, Companies and Government Institutions on Handwriting Authentication, Document Examination and D.C.S. Analysis throughout the world.

6.2 Abstract

Setting up laboratories to deal with & take advantage of DCS technology

Even though DCS technology is being deployed around the world for several years, replacing traditional signatures in private and public transactions, the incoming QDE cases are limited. This creates the misconception that a. a laboratory can get trained in time when the need arises and b. the technology involved is to be considered only in case of a disputed DCS.

Transitioning from traditional signature examination to DCS examination is not a trivial matter (even though publications of a detailed methodology exist) as there are several "new" parameters to explore. At the same time, DCS technology can be incorporated in every day casework with disputed traditional signatures, very much to the advantage of the QDE.

In this presentations these matters will be discussed as well as how Cyprus Police Handwriting Laboratory and Chartoularios Institute (Greece) have restructured their processes to accommodate this new technology.



Dr Mona Mohamed Awny

PhD

Associate Professor of Forensic Medicine and Toxicology, Faculty of Medicine, Suez Canal University, Egypt

7.1 Biography

Mona Mohamed Awny is an Associate Professor of Forensic Medicine & Clinical Toxicology, Faculty of Medicine, Suez Canal University, Egypt. She gained her PhD in the University of Suez Canal in Forensic Medicine & Clinical Toxicology in 2016. Her research and teaching interest are forensic medicine, forensic DNA applications, medical ethics, experimental toxicology, forgery, and Counterfeiting.

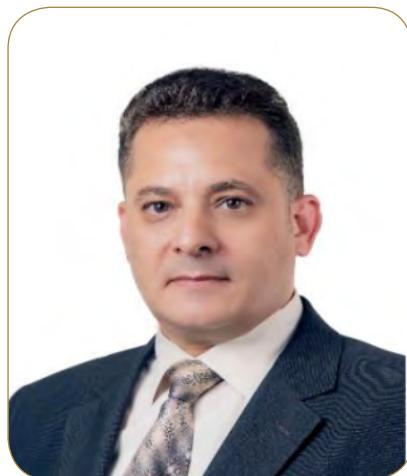
7.2 Abstract

Forensic Study of The Effect of Hemodialysis on Handwriting Characteristics

Handwriting is a skill that needs the integration of musculoskeletal and nervous actions. It could be affected by debilitating diseases like end-stage renal disease. Hemodialysis patients are at increased risk for cognitive impairment, psychological deficiencies, and metabolic changes which can influence the quality of handwriting.

To investigate the effect of hemodialysis in a sample of end-stage renal disease patients on their handwriting. This study included 110 end-stage renal disease patients on hemodialysis. They wrote two samples, one before and one after hemodialysis sessions with the unification of writing materials. Their handwriting was examined for word size, word spacing, and the pressure of writing, slanting direction of words, types of strokes, and overwriting. Among the studied patients, males were 61.8% and females were 38.2%. Most patients (70%) were on regular hemodialysis for less than 10 years. After hemodialysis 40.9% of the patients had increased word size, 14.5% had increased word spacing, 10.9% had weaker pressure of writing than before hemodialysis, and 44% showed strokes and overwriting. Extra strokes were the most common type that appeared after hemodialysis (25.5%). There were no significant associations between the presence of other concomitant diseases or the duration of hemodialysis and all the studied individual handwriting characteristics. Whereas increased word size and overwriting after hemodialysis were significantly higher in patients with medium-level education in comparison to other education levels.

Hemodialysis therapy could affect patients' handwriting characteristics to a certain degree regardless of the duration of end-stage renal disease.



Dr. Assistant Prof . Dr. Ahmed Gouhar

PhD. Chemistry

Assistant Professor, Consultant, Forensic Sciences Dep., College of Criminal Justice, NAUSS.

8.1 Biography

Dr. Ahmed Saad Gouhar has a 30–year experience in forgery and counterfeiting detection (Questioned Documents Examination) and forensic evidence. His experience includes the following positions:

Director and expert at Directorate of Counterfeiting and Forgery department Forensic Medicine Authority for Alexandria, Buhaira, and Mars Matrouh governorates in Arab Republic of Egypt.

Assistant Professor at Naif Arab University for Security Sciences (NAUSS) ,

Consultant to NAUSS Vice–Presidency for Training and Vice Rectorate for External Relations.

Head of Forensic Physical evidence Department and Supervisor on Lab of Digital Forensic Evidence Examination at NAUSS College of Forensic Sciences.

Deputy Dean of NAUSS College of Forensic Sciences.

Certified Trainer by the United Nations (UN)

Practical Experience in Various Forensic Fields as Follow:

Forensic Training course designer, Designed five different training courses of Questioned Documents Examinations for NAUSS, in addition to others in Fingerprint and Ballistics.

Forensic Chemist and Expert at Counterfeiting and Forgery Detection (Questioned Document Examination).

Certified expert for courts and public attorneys for expressing the professional opinion regarding the submitted reports.

Expert at examination of valuable documents, such as passports, identity cards, driving licenses, and credit cards, etc.

Expert at examination of coins, paper, polymer banknotes, stamps circulated around the world, stamps and their specifications to differentiate between authentic and counterfeit ones. He is expert in examining and comparing handwriting and machine scripts.

Expert at examining outputs of printers, computers, plotters, and traditional printing machines.

Expert at examination of official and customary documents and official trademarks

Instructor and trainer in examination of questioned document, digital forensic evidence, firearms, Toolmarks, and fingerprints.

Advanced TOT by United Nation Office on Drugs and Crime.

Academic Qualifications:

The first PhD degree in Applied Chemistry in polymer banknotes from Faculty of Science Ain Shams University in collaborating with Leading Security Banknotes Company Australia.

Master's degree in Inorganic and Analytical Chemistry Menoufia University.

Bachelor's degree in Chemistry Alexandria University

Prepared many published studies and research and participated in many local and international scientific events.

Published two books, Technology of Identity Card in the Field of Civil Affairs and Supremacy of Polymer Banknotes.

Main peer-reviewer for many specialized peer-reviewed scientific journals.

Editorial Board Member—Journal of Forensic Science and Forensic Medicine Expert assessor for Saudi Accreditation Center.

Attended many local and international conferences and workshops.

Dr. Gouhar has received many gratitude and congratulations letters during his academic and professional activities.

8.2 Abstract

New Trend in securing Travel Documents

This paper will show the advantages of changing from traditional cotton paper data page in travel documents into polypropylene data page. Presenting new security elements in polymer, comparing between security features in paper and polymer, durability, number of countries adopting polymer data page travel documents, visible and invisible security elements, types of storage and personalization.



Dr. Mohamed Awadalla

Consultant in the field of currencies, documents securing and signatures comparison & forgery detection
Forgery Detection Expert Forensic Lab; RAK police UAE.

9.1 Biography

Dr. Mohamed Awadalla has completed his PhD from Alazhar University, Egypt 2008. He supervises many researches for MSc and PhD theses in Egypt and UAE (faculties of science and pharmacy). He was a forgery detection expert since 1996 and general manager of forgery detection dept; since 2016 in the forensic medicine authority; ministry of justice; Egypt. Now he is chief of forgery detection unit, forensic lab; RAK police; UAE since 2019. He is a consultant in the field of banknotes & documents securing, signatures comparison and forgery detection since 2015 (Egyptian Syndicate of scientific professions). He is a member of the American Academy of Forensic Science (AAFS), a member of the Arab Federation for combating forgery and counterfeit (ARABFC) & a member of the Arab Society for Forensic Sciences and Forensic Medicine (ASFSFM). He Published 10 papers in reputed journals.

9.2 Abstract

Forensic view: Polymer banknotes against counterfeiting

The transfer from paper banknotes to polymer banknotes has become one of the smart solutions for some central banks to limit the spread of counterfeiting crimes, especially after the level of counterfeiting paper banknotes reached a stage of professionalism and in the absence of sufficient awareness from the publics. Professional counterfeiter now can counterfeit security elements for paper banknote especially the substrate is paper that can be simulated and accept different types of traditional and digital printing and the availability of simulated secure inks as UV ink from stores and internet. Paper now became soft material for counterfeiting and for simulating 1st and 2nd security level as tactility, watermark, threads and UV.

The role of forensic documents examiner doesn't limit to inspect if the suspected banknote is counterfeited or genuine; he must determine the counterfeiting techniques that used in printing and simulating all present security element and finally he must use scientific criteria to determine which banknotes user category can accept this counterfeited banknote. To do that, forensic documents examiner must have a professional experience and equipment as stereomicroscope and forgery detection workstation like (VSC8000) to get an accurate result. Sterling pound and AEDs are examples for banknotes that faced fierce attacks from professional counterfeiting; It had to be transferred from paper to polymer substrate to face professional counterfeitors.

Polymer banknotes start in Australia and get the high power when Sterling pound transfer from paper to polymer. Now some Arabic countries start for transferring to polymer banknotes.

Polymer banknote has many advantages and some disadvantages; the most important advantage is 3–4 times longer than paper with a good handling.

Another positive to polymer banknote particularly in hot countries is the fact that it can withstand extreme temperatures, polymer banknote can survive heat up to the 140 degrees. Also, it is easier to clean which is a good positive point in current pandemic-ridden world we live in.

This in addition that counterfeitors didn't reach the professionalism for counterfeiting polymer banknotes. Some of disadvantages are the high cost and slippery.

International printers all the time in research to provide polymer banknotes with security elements that as in the paper banknotes in addition to the security elements that it characterized.

The most important question is: Can polymer banknote be a magic solution to prevent banknote counterfeiting?



Pr.Ag Redouene Benazzouz

Diploma of Higher Medical Studies in Pneumology, and Doctoral degree
Associate Professor, Interim Head of the Pneumology Department at the Laghouat Public Hospital

I0.1 Biography

Pr.Ag Redouene Sid Ahmed Benazzouz is an esteemed academic and researcher specializing in Pulmonology. With a focus on Sleep Respiratory Disorders And a number of notable scientific research related to the field of accidentology. Since July 2023, he attained the rank of Associate Professor (Professeur Agrégé), demonstrating his expertise and dedication to advancing medical knowledge.

Pr.Ag Benazzouz obtained his Diploma of Higher Medical Studies in Pneumology in 2017, and completed his doctoral thesis in 2021 on the Prevalence of Obstructive Sleep Apnea Hypopnea Syndrome and its associated factors among professional drivers in Laghouat, showcasing his commitment to studying the impact of sleep disorders on specific populations. This research work marked his initial contribution to the field of accidentology, but certainly not his last.

In addition to his academic achievements, Pr.A Benazzouz has held leadership positions within the medical field. He has served as the Interim Head of the Pneumology Department at the Laghouat Public Hospital since 2020. Furthermore, he has taken on the role of Deputy Department Head responsible for postgraduate education and scientific research at the Faculty of Medicine in Laghouat since 2021. These positions demonstrate his leadership abilities and dedication to advancing medical practice and education.

Pr.Ag Benazzouz has presented notable research findings at various conferences, including the updated comparison of health effects between lead fuels and their alternatives at the Algerian Thoracic Oncology Society conference in 2022. He also discussed the impact of Obstructive Sleep Apnea Syndrome on professional drivers at the Second Scientific Day on Respiratory Functional Exploration and Pathophysiology in Alger in June 2021.

In addition to his research and academic involvement, Pr.Ag Benazzouz has played a pivotal role as the research director for the study on the incidence of accidents involving two-wheeled vehicles in the Laghouat province from 2021 to 2022. This research has provided valuable insights into accident prevention strategies and road safety measures.

Pr.Ag Benazzouz has also been involved in various advisory boards and expert committees. He serves as an Associate Editor and Reviewer for the Algerian Scientific journal Avicenna Medical Research. Additionally, he has worked as an Associate Editor and member of the editorial board for the book . The Algerian Experience in Managing the COVID-19 Pandemic. He is also a member of the scientific committee at the Faculty of Medicine in

Laghouat, actively contributing to the development of medical education and research. Associate Professor Redouene Sid Ahmed Benazzouz is extensive academic achievements, leadership positions, notable research communications, and active involvement in scientific societies and advisory boards highlight his dedication to advancing medical knowledge and improving patient care in the field of Pulmonology.

10.2 Abstract

Risk Factors for Severity of Two-Wheeled Vehicle Accidents and their Medicolegal Aspects

In Algeria, accidents involving two-wheeled motor vehicles accounted for 12.4% of recorded road accidents in 2017, marking a significant increase compared to 8.0% in 2010. The DRL (Deux Roues Laghouat) study is a comprehensive investigation conducted at the Laghouat Public Hospital, involving multiple disciplines, with the aim of analyzing road accidents involving two-wheeled vehicles over a period spread out over 06 months, between November 17, 2021, and May 11, 2022. The primary objective of this study is to assess the potential risk factors associated with the severity of these accidents. The analysis highlights excessive speed as the predominant risk factor identified by the study participants. Notably, vehicles involved in serious accidents were found to be driven at a rate twice as fast as those involved in non-serious accidents ($p=0.011$).

The median age of the victims (26 years) is significantly lower than the national median of 35 years in 2018. Human and meteorological factors are also important elements in our population. It should be noted that 76.81% of the accidents occurred in urban areas, and 53.19% at intersections. We observed a seasonal pattern in the use of two-wheeled vehicles. The month of May had the highest frequency of accidents at 38.57%. On the other hand, the winter weather coincides with a reduced number of accidents but with a higher frequency of serious accidents. 17.64% of the study population was under the influence of alcohol or other drugs at the time of the accident.

While our database analysis did not establish a significant association with other risk factors, it is crucial to emphasize the importance of further research to investigate the frequency of elements such as the absence of protective equipment.



Dr Mohammed Nour El Din

Master's degree in forensic medicine and clinical toxicology, Faculty of medicine, Cairo University 2012.
forensic medical examiner Worked in directorate of forensic science evidence ,public prosecution ,
kingdom of Bahrain

II.I Biography

Academic qualifications

Bachelor's degree in medicine and surgery from faculty of medicine, Cairo University 2002.

Master's degree in forensic medicine and clinical toxicology, Faculty of medicine, Cairo University 2012.

Work affiliation

Worked in forensic medical authority in Arab Republic Of Egypt from 2007 to 2017 as a forensic medical examinerWorked in directorate of forensic science evidence ,public prosecution , kingdom of Bahrain since 2013 till present day as a forensic medicine doctor.

Honors

Received the crown prince of kingdom of Bahrain prince Mohamed Bin Hamed Al-Khalifa medical merit award in 2023 for efforts during covid –19 pandemic.

II.2 Abstract

Airbag Fatality: A Case Report From the Kingdom of Bahrain

The main purpose of Airbags installed in automotives is to protect drivers as well as accompanying passengers during an accident. Despite their safety benefits, a considerable number of airbag-associated injuries are reported in the literature. Airbags are designed to open in head-on collisions when vehicle deceleration exceeds a specified threshold. Defective airbags deployment with metal projectiles launching and hitting passenger's head or neck have been reported.

Deaths from defective airbags are rarely reported in the Middle East. This article presents a case in the Kingdom of Bahrain of a driver whose car was in a head-on collision with another car resulting in severe head trauma and death at the scene. Death scene investigation revealed that a fire has originated from the airbag compartment with a cylindrical metallic object found missing a part of it. Autopsy of the deceased showed an injury to the right side of the head similar to a firearm inlet. Examination of the head revealed a cylindrical metal object that did not resemble firearm projectiles. The object appeared to have come from the interior of the car upon impact. Laboratory analysis confirmed that the two metallic objects recovered from the deceased's body were actually the broken pieces of airbag compartment. each other.

History taking , crime scene investigation and a good autopsy assist in correctly establishing the manner of death and concluding that it is a accidental death due to faulty airbag.



Associate Prof Dr Osama Elserafy

Doctorate in forensic medicine and clinical toxicology
King Fahd Security College (KSA)

12.1 Biography

Dr Osama Elserafy is an associate professor of forensic medicine and clinical toxicology who became a member of the academic staff at the faculty of medicine, Cairo University in 2009. He obtained a master's degree in forensic medicine and clinical toxicology from Cairo University in 2012, and in the same year, he also earned a master's degree in international business administration (MIBA) from ecle Supérieure Libre des Sciences Commerciales Appliquées (ESLSCA). Osama's thesis on the use of MRI in gender identification and age determination was registered, which introduced novel regression equations for age and gender in a sample of the Egyptian population. He was awarded a Doctorate in forensic medicine and clinical toxicology in 2015. Osama is a co-founder and treasurer of the Arab Union of Forensics and Toxicology (AUFT) and is also a member of the Saudi Society of Forensic Medicine and the Egyptian Society of Bio-Anthropological Sciences. Additionally, he is an associate member of the American Academy of Forensic Sciences. He is a senior consultant of forensic medicine and clinical toxicology in Egypt and a senior registrar of forensic medicine in the Kingdom of Saudi Arabia. Since 2016, he has been a member of the academic staff at King Fahd Security College (KSA) and the University of Newhaven (USA), where he plans and conducts forensic sciences courses. He is responsible for conducting clinical forensic examinations of sexual assaults and domestic violence cases, as well as performing autopsies of medicolegal cases. Osama has conducted research and published papers in Forensic Medicine, Clinical Toxicology, toxicogenetics, Anthropology, Forensic Odontology, and Radiology. Furthermore, his scientific contributions have been accepted for presentation at prestigious international conferences such as IAFS 2023, AUFT 2020, INPAFO2020, AUFT 2019, 2nd SICFMS, and IALM Conferences.

12.2 Abstract

Advancements in Forensic Investigation of Bodies Retrieved from Water

The investigation of corpses retrieved from water is a well-established subject in the fields of scientific, heritage, and religious studies. It is a prevalent occurrence, accounting for 7% of injury-related deaths and ranking as the third leading cause of unintentional injury death worldwide. Retrieval of corpses from water is not limited to specific age groups or circumstances and can occur both indoors and outdoors, in locations such as bathtubs, swimming pools, ponds, lakes, oceans, fountains, wells, and even buckets containing water. To conduct a thorough investigation, forensic examiners must understand the behaviour of corpses in liquids, in addition to the pathophysiology of drowning, the mechanism of death in cases of submersion, and updated investigation protocols. This systematic approach can aid in estimating the time, cause, and manner of death. Furthermore, forensic investigation of these cases can play a preventive role in reducing the incidence of drowning due to comorbidities. To improve the accuracy of investigations, applied studies should be conducted to define reliable markers that can be used to diagnose the time and site of emersion, type of liquid, cause, and manner of death. Taking into account the information provided earlier, the upcoming literature will cover various topics such as the conduct of corpses in water, the pathophysiology of drowning, and the mechanism of death in cases of submersion. Additionally, it will delve into the investigation of cases retrieved from the water, including victim identification, diagnosis of postmortem submersion time, and examination of the cause of death.



Dr Abdul Kareem Al Mansouri
Dr . Forensic Medicine doctor, Basra , Iraq

I3.I Biography

Doctor Abd El Kareen El Mansouri received his Medical degree from the Faculty of Medicine Basra University in 1988 , and received his speciality in Forensic Medicine from the University of Bagdad
He has worked in the field of forensic medicine since 1991 where he has performed autopsies for hundreds of interesting cases to determine the cause of death , he also works on many clinical forensic medicine cases like investigating and inspecting cases of physical assault, rape and age determination and many others
He has worked as the Manager of Forensic medicine department in Basra University from 2006 to 2013
He also worked in the Army forensic medicine for 2 years and has participated in many workshops and conferences.

I3.I Abstract

حالات الوفيات التي تحدث عند المرأة الحامل وخلال الولادة وبعدها

من القضايا الطبيعية العدلية التي تحال الى الطب الشرعي لغرض تشريحها ولمعرفة سبب الوفاة التي تحدث في المرأة أثناء فترة الحمل وخلال الولادة وما بعدها. ان من مضاعفات فترة الحمل التي تحدث للمرأة الحامل كثيرة منها مرض فقر الدم (الانيميا) والعدوى الجرثومية والايذار وارتفاع ضغط الدم والحمل خارج الرحم والاسقاط والاجهاض وما ينتج عنه من نزف دموي شديد.

وهنا المقصود بالاجهاض هو لفظ او اخراج محتويات الرحم قبل اتمام الشهر السادس (الاسبوع الرابع والعشرين) من الحياة الرحمية اما بعد هذه الفترة فتعتبر ولاده مبكرة.اما في فترة الولادة فقد يحدث تمزق في الرحم نتيجة عسر في الولادة والذي يكون عادة خطراً على حياة المرأة الحامل والجنين معاً وقد يكون هذا التمزق غير كامل حيث ان غشاء البريتون يبقى سليماً او ان يكون التمزق تماماً فان محتويات الرحم تنزلق الى تجويف البريتون وقد يحدث في اي وقت خلال فترة الحمل والذي يسبب حدوث نزف دموي شديد اي صدمة وعائيه وهبوط في ضغط الدم وشحوب وبرودة في الجلد والاطراف.

ان التمزق الذي يحدث في الرحم اما ان يكون ذاتي المنشأ بسبب عسر الولادة او تمزق يحدث بسبب عملية الاجهاض في اي دور من ادوار الحمل والتمزق الذاتي يكون موضعه في القسم الاسفل من الرحم ويكون باتجاه مستعرض.

اما المحدث فالتمزقات تكون وجزءه نافذة وغير نافذة في منطقة عنق الرحم او باطنها او في مؤخرة منطقة المهبل وكذلك يشاهد احتقان وتؤدي في منطقة المهبل ومنطقة الشفرتين بينما التمزق الذاتي فلا تشاهد هذه العلامات وكذلك يشاهد في التمزق المحدث اجسام غريبة كيمياوية التركيب ملتصقة في باطن مؤخرة المهبل او مقدمة عنق الرحم .ومن الاسباب المهمة والشائعة لموت المرأة الحامل لذلك فإن تمزق الرحم هو من الاسباب المهمة لحدوث الوفاة بسبب الجنين نفسه اذا كان تمزقاً شديداً او اذى الى بطنه المرأة الحامل اذا كانت هناك عمليه جراحية سابقه في منطقة البطن او الرحم.



Dr. Hafiz Ahmad

Ph.D AIIMS, New Delhi, PDF – NIH, USA

Associate Professor & Clinical Microbiologist Department of Medical Microbiology and Immunology RAK College of Medical Sciences, Ras Al Khaimah, UAE

14.1 Biography

RAK Medical & Health Sciences University Microbiology & Molecular Division In-charge (NGS & COVID lab) RAK Hospital Ras Al Khaimah, UAE

Dr Hafiz is an active Medical & Molecular Microbiologist with over 15 years' experience and presently serve as Associate Professor of Medical Microbiology, RAK college of Medicine & clinical Microbiologist and Molecular Division NGS & COVID Lab in-charge at RAK Hospital, Ras al Khaimah, UAE. He has a strong educational background with Ph.D. from India's top ranked medical institute, All India Institute of Medical Sciences, New Delhi, Doctoral Fellowship from the prestigious National Institute of Health (NIH) in Bethesda, USA and Post-Doctoral Molecular Training from Abbott Labs, Germany. In his previous affiliations, Dr Hafiz has served as Asst. Prof. of Microbiology – Jamia Millia Islamia (central university), New Delhi, Asst. Prof. of Microbiology – Government Medical college, Azamgarh-U.P, and Molecular Application Specialist – Abbott Molecular (Europe, Middle East Africa & India) along with being Chairman & Managing Director of Diagnostic Labs Pvt. Ltd. based in New Delhi. Dr Hafiz has over a decade's experience working on DNA sequencing technology: Sanger's Capillary sequencing, Next Generation Sequencing to COVID-19 sequencing along with his work on infectious diseases: Diabetes, Human Microbiome, Candida infections, Antibiotic Resistance, Opportunistic infections in HIV/TB etc. leading to > 35 scientific publications in peer reviewed journals and generated top tier research funding from Zayed Foundation. In 2016, he was awarded Sheikh Hamdan young scientist Award for outstanding work on Hepatitis C Virus. He is an editorial board member and reviewer for several journals including Springer Nature group journals, a frequent invited speaker, Co-chairperson of UAE Antibiotic Stewardship committee. Dr Hafiz is extensively involved in training and mentoring MBBS/MD and dental students at RAKMHSU. His He is a certified Internal Auditor & QMS Trainer for ISO 15189:2012 and an expert in molecular assays: PCR, RT-PCR, DNA sequencing, MALDI-TOF, genotyping etc. He is an enthusiastic professor with his research-based teaching philosophy. At RAK hospital, they are the first in UAE to commercially launch Ancestry testing using NGS technology.

14.2 Abstract

Technical Validation and Evaluation of MiSeq FGx Forensic Phenotyping (iMAGEN Assay) and Ancestry Prediction Assays in the United Arab Emirates

Forensic laboratory scientific analysis using advanced DNA fingerprinting technology is a major component of criminal justice system worldwide. Current Forensic DNA Identification Pathway include generation of data from crime scene site and matching with the reference database. Forensic DNA Short Tandem Repeat (STR) profile and Ancestry Testing using specific genes can accurately predict DNA witness phenotypes: Hair, Eye and skin color and provide lead for forensic investigations.

Our innovative project is aimed at advancing the field of forensic science through the application of advanced next generation genomic sequencing technology. By utilizing the MiSeq FGx forensic phenotyping technology for ancestry/genealogy prediction, we intend to predict phenotypic facial appearance traits to guide individuals ethnic background, and obtain genotypic traits through DNA analysis from crime scene evidence and unidentified human remains. The project also envisages to develop and validate a prototype tool that integrates Next Generation Sequencing (NGS) with Artificial Intelligence (AI) capabilities for predicting appearance, age, and ancestry from DNA evidence. This project seeks to enhance law enforcement capabilities in cases lacking eyewitnesses and promote the integration of cutting-edge genetics and AI for forensic investigations. The project is in collaboration with Amity University, Dubai, Ministry of Interior, Abu Dhabi, RAK Medical & Health Sciences University & RAK Hospital, Ras al Khaimah, UAE

The project aims to revolutionize forensic science practices in the UAE by validating and implementing the MiSeq FGx forensic phenotyping technology. This endeavor will significantly enhance law enforcement capabilities, increase scientific understanding, and promote collaborative efforts within the field. We believe that this project aligns with the priorities of local and regional forensic & legal departments and will lead to tangible benefits for both law enforcement agencies and society.

Third Day 01/II/2023 **HALL (A)**

Talk

09:00–09:20 AM

Prof Dr. RK Gorea Founder President of Indo Pacific Academy of Forensic Nursing Science, Indo Pacific Academy of Forensic Odontology

Investigation of Interpersonal Violence



Talk

09:20–09:40 AM

**Germaine Haddad The Regional Gender Advisor A.I.
United Nations Population Fund UNFPA Arab States
Regional Office**

United Nations Population Fund (UNFPA): Egypt best practice



Talk

09:40–10:00 AM

Prof MD Majed Zemni Manager of Department of Legal Medicine, Faculty of Medicine and the University Hospital of Sousse, Tunisia.

**Medical liability in obstetrics and gynaecology:
case series study**



Talk

11:00–12:50PM

**Dr. Summaiya Tariq Chief Police Surgeon Karachi, Pakistan.
Health Department, Government of Sindh.**

**Development of Guidelines, Protocols and Best Practices for Doctors and Police Investigators on SGBV,
VAWG & IPV**



COFFEE BREAK



Talk

10:20–10:40AM

Colonel Dr. Ahmed Bin Sbaiaan

Efforts of RAK Police Social Support centre in management of cases of violence against women and children



Talk

11:00–11:20AM

Dr. Nayef Aljanaahi Consultant Forensic Radiologist

Virtual Autopsy (VA) and Disaster Victim Identification (DVI)

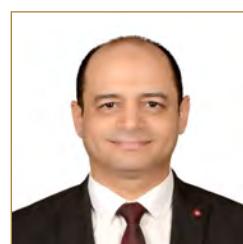


Talk

11:20–11:40AM

Dr. Mohammad Elhady Abdelhakiem Ratib Assistant Professor of Criminal Law at Dubai Police Academy, UAE

Virtual Autopsy and its evidentiary value in criminal proceedings



Talk

11:40–12:00PM

Prof. Dr. Shereen Ahmed El Khateeb Professor of Forensic medicine and toxicology, Faculty of Medicine, Zagazig University

Forensic Radiology: Recent Advances and Applications in Forensic Science



Talk

12:00–12:20PM

Dr Essa Saeedi Consultant Forensic Pathologist at Abu Dhabi central mortuary, SEHA, UAE

**Building capacity and ensuring preparedness
The UAE DVI team training accomplishments**



Talk

12:20–12:40PM

**Major.Expert Khudooma Saeed ALnuaimi
Expert in Forensic Biology section, Department of
Forensic Evidences in the Abu Dhabi Police GHQ**

**The application of forensic anthropology in burned body
remains examination**



DISCUSSION 12:40 – 12:50PM

COFFEE BREAK

Talk

13:00–13:20PM

**Dr. Younis Albalooshi Head of Forensic Medicine
department, General Department of Forensic Science
and Criminology, Dubai Police**

**The role of Dubai Police forensic sciences experts
in a semi-disaster fire accident**

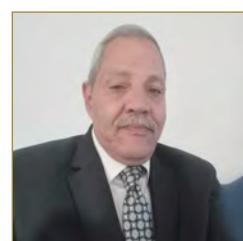


Talk

13:20–13:40PM

Adel Muhammad Ali Makhlof Retired Police Major General

**The technical inspection of the explosion crime scene
and the limited and expanded fire**



Talk

13:40–14:00PM

Major.Expert Khudooma Saeed ALnuaimi
Expert in Forensic Biology section, Department of Forensic
Evidences in the Abu Dhabi Police GHQ
Designing and conducting an effective police
training in blood pattern analysis



DISCUSSION 14:00 – 14:10 PM

CLOSING CEREMONY

LUNCH





Prof Dr. RK Gorea

Founder President of Indo Pacific Academy of Forensic Nursing Science, Indo Pacific
Academy of Forensic Odontology

O.I. Biography

Rakesh K Gorea is Professor and Head, Forensic Medicine, at Gian Sagar Medical College, Punjab, Faculty member of National Forensic Science University, Gandhinagar and Professor Emeritus at SJT University, Rajasthan, Adjunct Professor, Eternal University, HP and formerly Faculty Member at Forensic Medicine Department, College of Medicine, PrinceSattam bin Abdul Aziz University, Saudi Arabia and Former Principal and Professor at NC Medical College, Panipat and Rama Medical College, Hospital and Research Centre, Kanpur in India. Due to his untiring efforts to develop forensic Nursing Science in India, He is popularly known as the Father of Forensic Nursing in India.

He is a BSc, MD, PhD and Diplomate of the National Board. He was a Faculty member of Forensic and Legal Medicine at the Royal College of Physicians London. He is a fellow of the Indian Academy of Forensic Medicine, International Medical Science Academy and Indian Congress of Forensic Medicine and Toxicology. He has completed the quality management system Lead auditor course in ISO 9001:2008 Standards from Moody International UK.

He is the Founder President of Indo Pacific Academy of Forensic Nursing Science, Indo-Pacific Academy of Forensic Odontology and Society for Prevention of Injuries and Corporal Punishment and past president of the Indian Academy of Forensic Medicine and Founder President of Punjab Academy of Forensic Medicine & Toxicology, former Editor in chief of the journal of Indian Academy of Forensic Medicine and Journal of Punjab Academy of Forensic Medicine and Toxicology, besides being office-bearer of many other organizations. Currently, he is Editor in chief of the International Journal of Ethics, Trauma and Victimology and editor of the Global Journal of Nursing and Forensic Sciences

He is a member of the advisory committee of the Journal of Indian Academy of Forensic Medicine, the Global Journal of Nursing & Forensic Studies and the German Journal of Forensic Sciences.

He has presented 160 papers at national and international forums with 150 research publications. He has authored two books "Practical Aspects of Forensic Medicine" & "Forensic Nursing Science: A Global Health Initiative for Developing and Developed Countries" and has authored 6 chapters for the 6 different books.

He has 38 years of teaching experience. He has guided many MD and PhD Scholars. He has two national and two international awards to his credit and delivered 50 keynotes and guest lectures. He was given a special award by

the Indian Academy of Forensic Medicine for his efforts to develop Forensic Nursing in India, a Vision Award by the International Association of Forensic Nurses at Salt Lake City USA, an Excellence Award by SAFCON and a Lifetime Achievement Award by IJHRLMP and PAFMAT.

His academic areas of special interest are Forensic Nursing, Forensic Odontology and prevention of crime against children.

He has rich international experience, delivering keynote and guest lectures in the USA, UK, Switzerland, India, Pakistan, Sri Lanka, Peru, South Africa, Australia, Egypt, Iran, Turkey, UAE, Kingdom of Saudi Arabia, Belgium, Sudan and Sri Lanka.

O.I. Abstract

INVESTIGATION OF INTERPERSONAL VIOLENCE

Interpersonal violence is one of the major causes of morbidity and mortality. To reduce the burden of treatment of victims and rehabilitation of survivors it is imperative that this type of violence stops or is minimised. Causes of this violence vary in the different age groups and different settings.

Investigation on the right lines is very important to prosecute the offenders successfully and save the innocents. The investigation will involve multi-specialty teams comprising police officers, clinical forensic medicine specialists, forensic pathologists, forensic odontologists, forensic nurses, forensic photographers and forensic scientists. Biological evidence collection & preservation is as important as saving the life of the victims. These shreds of evidence may be the recording of injuries and collection of biological pieces of evidence like blood stains, seminal stains, and other stains and bite marks. Identification and collection of this evidence will play a vital role. Finding out the cause of death, the duration of the injuries and the possible weapon will go a long way in nailing the culprits. Scientific evidence will help to successfully prosecute the culprits thus reducing further chances of continuation of interpersonal violence.



Germaine Haddad

The Regional Gender Advisor A.I. United Nations Population Fund UNFPA Arab States Regional Office

2.1 Biography

Skills and Expertise: Over 23 years working experience in professional development and programme management mainly on programmes related to public policy and systems enhancement with government, faith-based organizations, civil society and research institutions – Expert on gender equality, gender-based violence protection and response systems, female genital mutilation, development of national strategies and implementation frameworks/structures promoting human rights and gender equality.

Experience on population issues, reproductive health and rights, personal status law, international relations and conventions – Contributed to a number of published researches and technical manuals & guidelines, including Egypt's Economic Cost of Gender Based Violence Survey 2015.

Vast experience in strategic level, policy advocacy, Partnerships & Resource Mobilization.

Joined UNFPA in 2008–Currently: The Regional Gender Advisor A.I. – United Nations Population Fund (UNFPA)–Arab States Regional Office

Deputy Representative/ Head of programmes– United Nations Population Fund (UNFPA)–Egypt. Leading programmes in the areas of Population & development, Promoting Reproductive Health, Combating all forms of GBV & promoting Youth Empowerment.

Previously: Held the post of Development Specialist, Municipal Initiative for Strategic Recovery /Public Policy & Decentralization– UNDP

Held the post of Technical Supervisor/ Deputy Director –The Trade–Related Assistance Center advising Egypt's business community on trade policies & the implications of joining the World Trade Organization, USAID project, at the American Chamber of Commerce

Held the post of Senior Program Officer –The Ombudsman Office– the National Council for Women.

Education:

Masters of Arts – Professional Development studies, Political Science. The American University in Cairo– Thesis topic “The Role of Family Law and Women’s Economic Empowerment in Egypt”– 2009

Diploma on Women> Rights and International Human Rights Standards from Raoul Wallenberg Institute, Lund University, Sweden– 2004.

Bachelor of Arts in Political science (specialization in International Relations) and Business Administration, the American University in Cairo– 1996

2.2 Abstract

UNFPA Egypt best practice in the adaptation of the global Essential Package of Services

To showcase UNFPA Egypt best practice in the adaptation of the global Essential Package of Services – and specifically rolling-out the gender-based violence medical response and the Female Genital Mutilation forensic investigation & reporting

UNFPA Egypt led the process of the adaptation and roll-out of global Essential Package of Services for Women and Girls subjected to violence. UNFPA led the development of the adapted medical module/ guideline for medical response inclusive of collection and adequate storage of forensic evidence.

UNFPA also led the capacity building programme for medical service providers and forensic practitioners. The capacity building programme covers all forms of GBV including domestic violence, sexual assaults and rape as well as Female Genital Mutilation. The medical response package comprises preliminary psychological aid, physical investigation, adequate reporting (including forensic reporting), medical prescription (including STIs and Emergency contraception) and other services. This capacity building programme was rolled out in 400 public hospitals (covering physicians and nurses), as well as University hospitals where over 10 University GBV medical clinics are now established. It also covered all forensics specialists in Egypt and currently the 2 main forensic units integrated GBV medical response.

The session will focus on presenting this best practice and the lessons learned from adopting a comprehensive protection and response approach merging medical response and policing, forensics and justice.



Prof MD Majed Zemni

Diploma in clinical toxicology, Diploma in forensic psychiatry and clinical criminology, Diploma in legal compensation for personal injury: from the University of Claude Bernard Lyon France.

Manager of Department of Legal Medicine, Faculty of Medicine and the University Hospital of Sousse, Tunisia.

3.1 Biography

Doctor of Medicine, Professor of Forensic Medicine.

French Diploma of National Certificate of specialized forensic medicine studies.

Establishment and management of the Department of Legal Medicine at the Faculty of Medicine and the University Hospital of Sousse, Tunisia.

Legal expert.

President of the technical section of the Tunisian National Medical Ethics Committee (2007–2011).

General Director of the Tunisian National Office of the Family and the Population (2012–2014).

Participation in the elaboration of the Code of Ethics of the Islamic countries under the aegis of the WHO and the UNESCO.

Expert with the WHO and the UNESCO on ethical and deontological questions.

Development with WHO – ONUSIDA of a training strategy on questions of medical and professional ethics related to HIV infection.

Management in collaboration with INSERM – Toulouse of the Franco–Tunisian project Bioethics and Public Health.

Partner of the European Summer University Health Law and Biomedical Ethics Sabatier University, Toulouse.

Numerous participations in regional and international congresses with presentation of conferences.

Several scientific publications and articles in forensic sciences, Bioethics and medical law.

Member of the International Bioethics Research Institute, Montreal, Canada.

President of the Tunisian Association of Legal Medicine and Criminal Sciences.

Currently President of the Mediterranean Society of Legal Medicine.

O.I. Abstract

Medical liability in Obstetrics and Gynaecology: case series study

The medical liability of the gynecologist is particular as it addresses the wellbeing of women, their sexuality, their fertility and their children.

We aimed to study the different circumstances engaging the medical liability in obstetrics and gynecology and the evolution of the jurisprudence related to this matter.

Our study concerned forty-five cases of medical liability expertise reports in obstetrics and gynecology carried at the Department of Legal Medicine of Farhat Hached University Hospital in Sousse, Tunisia over a period of 25 years, and we have analyzed the findings of expert doctors and the judgments.

Obstetrics and gynecology ranks first in medical liability affairs in our department. The expert reports concerned five gynecology cases and forty obstetrics cases divided into twenty-three maternal incidents and seventeen incidents occurring in the newborn, including six cases of complications related to brachial plexus trauma. All the affairs were penal. The college of experts concluded the absence of malpractice in 39 affairs and the presence of malpractice in 6 cases. The malpractice concerned the choice, execution or monitoring of the treatment. In all cases, the judgment was in agreement with the experts' conclusion.

The analysis of the experts' reports confirmed the high medico-legal risk in obstetrics and gynecology. Prevention is based on compliance with the rules of medical practice. The management of medical liability expertise must also be based on established procedures. The draft of the new Tunisian law on patients' rights delimits the responsibilities, defines the medical risks and the medical malpractices, and specifies the methods of conciliation and compensation.



Dr. Summaiya Tariq

MBBS; DMJ

Chief Police Surgeon Karachi, Pakistan. Health Department, Government of Sindh.

4.1 Biography

Dr. Summaiya is a medical graduate from Dow Medical College, Karachi with honors in Surgery. She has completed her Diploma in Medical Jurisprudence (DMJ) from Dow University of Health Sciences, Karachi, in 2012. She is currently heading the Medicolegal services in Karachi, Pakistan as Chief Police Surgeon where she has served over 20 million residents in the Medicolegal Department, since 1999.

She is a certified Master Trainer for capacity building of personnel handling cases of Sexual and Gender Based Violence (SGBV) especially the first responders including doctors, medical officers, investigating officers and prosecutors and members of judiciary. She is a certified Master Trainer for Gender Sensitization and Trans-Gender Taboos. She is Specialist Clinical Management of Rape and Intimate Partner Violence and has developed Guidelines and Protocols to be used in the country. She is helping to digitize the entire Medicolegal Services in the southern province of Sindh. She was notified as member, Special Committee (Federal Parliament) for the Anti-Rape (Investigation & Trial) Act 2021 and has since served as an active member, having worked on the Act itself and then the Notified Rules 2022 and is now developing the Rules for Medicolegal, Investigation and Prosecution under this Act, for implementation.

She is the Technical Advisor to the Government of Sindh in Medicolegal matters and serves as Amicus Curiae to the Hon. Sindh High Court. Her latest assistance to Hon. High Court Sindh is development of Protocols for Multi-sectoral Handling of Industrial Accidents. She has also been notified as member/secretary to the Special Committee (Sindh) for the Sindh Medicolegal Act 2023, the first draft of which is being vetted by the Department of Law, Government of Sindh. She also serves as member Special Medical Board at the Services Hospital Karachi, which is point of appeal against all Medicolegal Certificates and Postmortem Reports in the province of Sindh. She has also served on the Exhumation Board and conducted over 100 exhumations.

She is a notified master trainer by the Health Department, Government of Sindh and conducts sessions in person and online monthly. She is visiting faculty at public and private sector Medical Universities for both undergraduate and postgraduate students. She is visiting faculty at Sindh Judicial Academy and Sindh Police Academy. Her current projects include establishment of Anti-Rape Crisis Cells as pilot in the cities of Karachi, Peshawar, Multan and Islamabad. She is finalizing Guidelines and Protocols for Medicolegal handling of cases of Sexual Violence

and developing a manual for Best Ethical Medicolegal Practices. She has also developed and tested protocols for handling Mass Disasters and Dead Victim Identification.

She is a member of the Pakistan Society of Forensic Medicine & Toxicology (Federal Chapter). She is a member of Indo-Pacific Association of Law, Medicine & Science (INPALMS) since December 2022.

She is co-authoring a chapter in Global Manual of Medical Imaging for Radiologists and Clinicians.

A researcher at heart, Dr. Summaiya has co-authored six scientific papers and has presented on several National and International scientific sessions (INPALMS 2022 & APMLA 2023)

4.2 Abstract

Development of Guidelines, Protocols and Best Practices for Doctors and Police Investigators on SGBV, VAWG & IPV

Sexual and Gender Based Violence is an umbrella term and includes different forms of violence being perpetrated against a specific gender. This occurs predominantly due to existing gender inequalities in a society.

Gender Sensitization is at the heart of development of any Guidelines, Protocols and Best Practices for the first responders, most commonly including doctors and police investigators.

The model One-Stop-Protection-Center shall provide all services required under one roof, with fluid points of entry, mandatory contact points within the center and referral pathways for medical and psycho-social needs.

Best Practices require a Multi-Sectoral approach involving the criminal justice system actors, where examining doctor is a witness for the prosecution.

The concept of "Think Trial Approach" also needs to be adhered to when documenting a potential case of Sexual & Gender Based Violence including the Intimate Partner Violence and/or Violence Against Women and Girls. This approach ensures that the documentation or evidence collection done shall hold up in a court of law.

The Guidelines are to be followed as a flow chart described in protocols; bifurcated into Pre-Medicolegal and Post-Medicolegal for the police investigators.



Colonel Dr. Ahmed Subaian Alteneiji
Manger of Social Support Center

5.1 Biography

الشهادات العلمية :

دكتوراه في الاستراتيجية الوطنية لتعزيز الأمن الفكري
ماجستير قانون عام بعنوان (الطبيعة القانونية للجرائم الإرهاب واستراتيجية المكافحة) جامعة الشارقة .
ليسانس قانون وعلوم شرطية (كلية الشرطة أبوظبي)

الخبرات :

- مدير مركز الدعم الاجتماعي - وزارة الداخلية - القيادة العامة لشرطة رأس الخيمة - رتبة عقيد.
- مقيم معتمد أوربي
- مدیر إدارة معرفه معتمد.
- مدقيق نظم جودة رئيسي معتمد في : الأيزو 9001:2008
- دبلوم التمييز المؤسسي الأول (آفاق التطوير
القيادي بالتعاون مع جامعة مانشستر)
المملكة المتحدة
- دبلوم العالي حماية الطفل

الثناء والتقدير :

- شهادة تقدير امتياز في العمل الوظيفي آخر عشر سنوات . وسام وشهادة شكر وتقدير من سيدى صاحب السمو الشيخ محمد بن راشد المكتوم نائب رئيس الدولة رئيس مجلس الوزراء

Expo

- ميدالية التميز الوظيفي من سيدى الفريق سمو الشيخ سيف بن زايد
آل نهيان نائب رئيس مجلس الوزراء وزير الداخلية لعضويته ضمن فريق Expo

شهادة التميز الوظيفي من : الفريق سمو الشيخ سيف بن زايد آل نهيان
- شهادة التميز : بقرار وزاري رقم 5 لعام 2020 م من الفريق سمو الشيخ سيف بن زايد آل نهيان - الفرق الداعمة لنظام جائزة وزارة الداخلية للتميز ...

- شهادة شكر وثناء من الفريق سيف الشعفار وكيل وزارة الداخلية لمحاضرین الخدمة الوطنية .

- شهادة شكر وثناء من : وكيل الوزارة المساعد بوزارة الداخلية لحصول القسم على أفضل قسم على مستوى الدولة في تقييم الأداء الوظيفي لعام 2017 .

شهادة شكر وثناء من : القائد العام لشرطة رأس الخيمة لحصوله على جائزة المقترنات الفئة الثالثة ضمن جائزة وزارة الداخلية لعام 2015

- شهادة شكر من : مدير منطقة رأس الخيمة الطبية (ترسیخ مفهوم الشراكة المجتمعية) .

- الحصول على المركز الثاني في دورات القيادات الوسطى والأولى بوزارة الداخلية .
- ميدالية التميز الوظيفي.
- المشارطة في فرق عمل برنامج الشيخ محمد بن راشد للتميز الحكومي.
- ميدالية التقدير (للتفوق الدراسي)
- ميدالية الخدمة المخلصة في وزارة الداخلية
- ميدالية الخدمة الطويلة الممتازة في وزارة الداخلية . الحصول على أكثر من 15 شهادة شكر وثناء من القائد والمدير المباشر في العمل.

الدورات والبرامج :

- قياس الأداء المؤسسي .
- إدارة المعرفة
- العمليات الإدارية ومؤشرات الأداء**
- عمليات الأمن الداخلي
- التدريب العملي على نظام جينيس للتقييم
- القيادة المبنية على الكفاءات
- إدارة الأداء المبني على الكفاءات
- التدفيع الوظيفي
- مقابلات قياس الكفاءات
- مهارات المقيمين
- مركز تقييم وتطوير الكفاءات
- تصميم هيكل الكفاءات وتحليل الوصف الوظيفي

5.2 Abstract

Efforts of RAK Police Social Support centre in management of cases of violence against women and children

The United Arab Emirates has paid great attention to women and children, and has enacted laws that preserve their rights and protect them from any attack or anything that may affect their dignity, in addition to establishing social and family institutions that care for women and children. The Ministry has given internal attention to the family and all its members.

The MOI has established a Child Protection Center which plays a major role in the prevention against all forms of child abuse.

Moreover,

Centers have been established in all the emirates, known as Social Support Centers, which take care of resolving family and marital disputes as well as emphasize the rights of children from any assaults that may be committed against them as part the awareness raising efforts through lectures, workshops, and seminars which highlight the importance of this issue.

Hence, the Social Support Center at Ras Al Khaimah Police General Headquarters plays a crucial role in providing comprehensive medical support to families in general and children and women in particular. It addresses the details and investigates children abuse cases through approved systems and models. The efforts are split into four main areas: the first branch is awareness and family service, the official liaison branch which considers the various details that affect children within schools and branch of psychological school support for victims of crime, and finally the shelter and social care branch, which is linked to the social institutions in the emirate which rehabilitates victims and cases whilst ensuring social and psychological wellbeing and stability.

The center employs qualified social workers and psychologists who possess a wide range of practical and academic hands-on experience, which makes them highly qualified and effective, thus fulfilling the UAE Government vision and the MOI mission regarding the quality of security life in society.



Dr. Nayef Aljanaah

MB, BCh, BAO (IRELAND), FRCR (UK), MMED (SINGAPORE), MSC (UK)
Consultant Forensic Radiologist

6.1 Biography

The founder of Virtual Autopsy and Forensic Radiology in the UAE The first Emirati-licensed consultant in forensic radiology by the Department of health–Abu Dhabi Pioneer in Forensic Radiology and virtual autopsy with 8 years experience in the field Expertise in Post Mortem CT and Virtual Autopsy Project development Expert in Disaster Victim identification using Post Mortem imaging

Work Experience Forensic Radiology Abu Dhabi Central Morgue SEHA 2020 until date Forensic Radiology Forensic Medicine Section / Forensic Evidence Department /Abu Dhabi Police October 2019 to 2020 Forensic Radiology East Midland Forensic Unit / University of Leicester September 2018 to October 2019 Forensic Radiology Victorian Institute of Forensic Medicine (VIFM) Australia May 2016 to February 2017 Specialist in Diagnostic Imaging Abu Dhabi Police Polyclinic July 2015 to May 2016 Radiology training National university hospital (NUH) Singapore May 2010 to May 2014 and March 2015 to June 2015. General Practitioner Abu Dhabi Police polyclinic since Aug 2007 to April 2010 and June 2014 to February 2015 Internship (surgical rotation) AIQassemi Hospital, Sharjah, UAE February 2007 to August 2007 (6 months) Internship (medical rotation) Beaumont Hospital, Dublin, Rep. of Ireland July 2006 to December 2006 (6 months)

Education History : Clinical Fellowship in Forensic Radiology (East Midland Forensic Unit – United Kingdom) 2018 – 2019 Master of Science (Post Mortem Radiology for Natural and Forensic Death Investigation) University of Leicester 2017 – 2018 Clinical Fellowship in Forensic Radiology (Victorian Institute of Forensic Medicine – Australia) 2016 – 2017 Master of Medicine (Diagnostic Radiology) National University of Singapore (NUS) 2010 – 2015 Fellowship of Royal College of Radiologist (FRCR) (UK) 2010 – 2015 Bachelor of Medicine, and Bachelor of Surgery, Bachelor of Obstetrics,. MBChB, BAO Royal College of Surgeons (RCSI), Ireland 2000 – 2006

Volunteer Work, Awards, Affiliations, and Interests:

2023 Winning the award for the excellence innovative idea (Virtual Autopsy) by the Minister of Interior>s Excellence Award 2022 Winning the award for the outstanding innovation security idea by the Abu Dhabi Police Commander Chief Excellence Award 2020 Founder of virtual autopsy in Abu Dhabi, United Arab Emirates. 2017 The first graduate with highest academic degree in Master of Science (Post Mortem Radiology for Natural and Forensic Death Investigation) 2019 First Forensic Consultant Radiologist in the United Arab Emirates. 2005 Honors in, Forensic Medicine, Psychiatry, Neonatology, ENT. 2003 Educational Scholarship from Abu Dhabi Police Department 2002

Honors in Physiology, Anatomy, Biochemistry, Pharmacology, Behavioural Sciences I997 Financial Scholarship from Ministry of Higher Education and Research. I997 Proud to be honored by his highness Sheikh Humaid Al Nuaimi – Gold Medalist Best Final Year Performance in Ajman, UAE.

Courses / Conferences The use of virtual autopsy in death investigation GCC Forensic Exhibition & conference. (2018) Virtual Autopsy in Abu Dhabi central morgue Abu Dhabi Police Forensic department. (October, 2020) Post-Mortem CT in Disaster Victim Identification Abu Dhabi Police Forensic department. (February, 2020) The use of virtual autopsy in police death investigation Third Edition of the Minister of Interior's Award for Scientific Research. (April, 2017) The use of CT imaging in Forensic Medicine Abu Dhabi Police Forensic department. (May, 2017) Visiting lecturer fellow University of Leicester. (2018) Forensic Radiology Ministry of Justice (February, 2020). Virtual Autopsy in Abu Dhabi Department of health. (May, 2021) Virtual Autopsy in Abu Dhabi Abu Dhabi Central morgue. (September, 2022) United Arab Emirates Disaster Victim Identification Team Abilities Regional Conference for Disaster Victim Identification in cooperation with INTERPOL. (November, 2022) Virtual Autopsy for death investigation Sharjah University Visit in Abu Dhabi central morgue. (February, 2023) The use of Virtual Autopsy in DVI Abu Dhabi Central Morgue. (May, 2023)

Publications

Published September 2020

The use of mid-arm circumference for the estimation of adult body weight: a post mortem computed tomography approach Utilization of virtual autopsy in police caseS

6.II Abstract

Virtual Autopsy (VA) and Disaster Victim Identification (DVI)

Virtual autopsy has been one of the most significant developments in the field of forensic medicine in recent years, particularly since the development of 3D equipment and technical software that has played a significant role in examining corpses without the need to use a scalpel to determine the cause of death in many cases. The significance of adopting virtual autopsy technology arises from its benefits in providing detailed information that contribute to the analysis of the cause of death, as well as the fact that in some cases it is usually more accurate

and takes less time than traditional autopsies.

Virtual autopsy can be used to identify victims of crises and disasters, and its results are favorable signs that confirm the urgent necessity for its spread. After a mass-fatality accident occurs, the victims must be identified quickly and accurately for legal reasons as well as for the sake of the victims' relatives. Because mass-fatality incidents are frequently international in scope, INTERPOL has proposed standard procedures for identifying disaster victims, which have been widely adopted by authorities and forensic experts.



Dr. Mohammad Elhady Abdelhafiz

Assistant Professor

Assistant Professor of Criminal Law at Dubai Police Academy, UAE

7.1 Biography

Education:

- Bachelor of Medicine and Surgery, MBBCh., 2002.
- Bachelor of Law, LLB., 2009.
- Master Degree of Law, MSc., 2011.
- Doctoral Degree of Criminal Law, PhD., 2018.

Work Experience:

- Forensic Medicine Expert, Ministry of Justice, Egypt.
- Executive director of Assiut University Legal Clinic.
- Visiting Scholar at John Marshall Law School, USA.
- Lecturer of Criminal Law, Faculty of Law Assiut University, Egypt.
- Director of English Law Program, Assiut University, Egypt.
- Assistant Professor of Criminal Law, Dubai Police Academy, UAE.

7.2Abstract

Virtual Autopsy and Its Evidentiary Value in Criminal Proceedings

Virtual autopsy, or virtopsy, is an alternative indicative medical method that might reveal causes of death, and hence, has its value as a suggestive tool of probable scenarios of cases of criminal assaults.

Virtual autopsy is non or at least minimally invasive procedure that has many advantages over traditional autopsy. However, and as an image-based procedure, its value as a criminal evidence might be discussable in comparison with invasive autopsy.

Addressing best legal solutions to regulate virtual autopsy for achieving its benefits and advantages, and at the same time, enhance its evidentiary value.

The research basically follows inductive reasoning and analytic methodology, by reviewing virtopsy and underlying procedures parallel to law of criminal evidence to extrapolate general principles and address legal solutions that achieve best benefit of such procedure.

Virtual autopsy has many advantages that enhance criminal law enforcement. However, it is preferable to be performed side by side with invasive manipulations, as mere reliance thereupon might be incompatible with the rule of certainty in criminal evidence.



Prof. Dr. Shereen Ahmed El Khateeb

Professor of forensic medicine and clinical Toxicology

Professor of Forensic medicine and toxicology, Faculty of Medicine, Zagazig University

8.1 Biography

- Member of the Arab Union of Forensics and Toxicology (AUFT) which is a branch of Arab Medical Union
- Member of the Egyptian Society of Clinical Toxicology
- Medico- legal expert, Forgery and counterfeit expert in Forensic medicine consultations unite faculty of Medicine Zagazige university
 - Member in designing the new MBBCh program in Zagazig University
 - Editor in the zagazig Journal of Forensic Medicine and Toxicology.
 - Reviewer in many national and international journal
 - Participate as author in writing Essentials of Forensic Medicine book for medical student
 - Participate in teaching the theoretical and practical course of forgery and counterfeit to Forensic Chemistry diploma, faculty of Science, Zagazig University.
 - Published more than 20 researches in national and international journals
 - Attendance and participation as a speaker in many national and international conferences.

8.2 Abstract

Forensic Radiology: Recent Advances and Applications in Forensic Science

Forensic radiology is a non-invasive technique that plays an essential role and became a powerful tool during the forensic investigation. Forensic radiology has broad applications in many forensic disciplines including forensic anthropology, forensic odontology, firearm, rape, pandemics, toxicology and mass disaster, drug addiction, etc. Every day, there is modern method in forensic radiology that try to solve a problem in forensic science investigation. This review provides an overview of forensic radiology and identifies potential challenges and opportunities.



Dr Essa Saeedi

FRCPA (Fellowship in Forensic Pathology) The Royal college of Pathologists of Australasia
Consultant Forensic Pathologist at Abu Dhabi central mortuary, SEHA, UAE

9.1 Biography

Expert in the use of the most recent technologies such as post mortem imaging (virtual autopsy), histopathology and the conventional autopsy techniques to establish the cause and manner of death.

Education: 07/12 08/17 The Royal college of Pathologists of Australasia FRCPA (Fellowship in Forensic Pathology) – 10/99 05/05 The Royal College of Surgeons in Ireland M.B, B.CH., B.A.O., L.R.C.P & S.I. – 02/16– 09/21 Monash University Australia MForensMed (Master in Forensic Medicine)

Work experience: 07/05 06/06 Beaumont Hospital, Dublin, Ireland. (Internship year), 07/06 02/10 Police polyclinic, Abu Dhabi, UAE. (GP role), 07/08 09/08 Shiek Khalifa Medical City, Abu Dhabi, UAE. (Ophthalmology) – 02/10 06/12 Mafraq hospital, Abu Dhabi, UAE. (Anatomical pathology), 04/10 05/10 3 weeks observership in the Ontario Forensic Pathology Service, 07/12 01/13 Bendigo hospital, VIC, Australia. (Anatomical pathology), 02/13 01/15 Northern Hospital, Epping VIC, Australia. (Anatomical Pathology), 02/15 10/15 Box hill Hospital, VIC, Australia. (Anatomical Pathology), 11/15 08/18 Victorian Institute of Forensic Medicine, VIC, Australia. (Forensic Pathology), 08/18 12/20 Forensic Evidence department, Abu Dhabi Police, UAE. (consultant Forensic Pathologist), 01/21 to date Abu Dhabi central mortuary, SEHA, UAE. (Consultant Forensic Pathologist & advisor in medicolegal death investigation for the emirate of Abu Dhabi)

Scope of training and area of expertise:

The use of the most recent technologies such as post mortem imaging (virtual autopsy), histopathology and the conventional autopsy techniques to establish the cause and manner of death.

Using the above techniques to facilitate the investigation of natural deaths that have a genetic nature and allowing referral of family members for genetic screening (the molecular autopsy).

Medicolegal death investigation of sudden and unexpected deaths.

Dealing with natural, suicide, homicide and accidental deaths to establish the cause and manner of death.

Dealing with a wide array of cases which include but are not limited to deaths consequent to medical intervention, aviation related incidents, scuba diving deaths, elder and child abuse and work-safe related deaths.

Providing expert opinion reports to the legal system upon request.

Accomplishments:

Establishing and running postmortem imaging service (virtual autopsy) at Abu Dhabi central mortuary, July 2020. Leading SEHA quality team in fulfilling requirements for international accreditation.

Point of contact for all technical matters related to the post-mortem services including quality, equipment, building design and operations.

Leading the Abu Dhabi central mortuary renovation project.

Member of the UAE DVI team (disaster victim identification) and point of contact for technical guidance and annual training related to DVI.

Advisor in disaster and business continuity planning for post-mortem services.

Providing guidance in activating the Abu Dhabi central mortuary labs.

Publication and presentations:

Annual training courses for Forensic physicians in Disaster victim identification DVI.

Presented at Pathology Update 2017 (Mortuary occupational health and safety. Potential pit falls and the effects on mental health).

Presented at the GCC Forensic Exhibition & Conference 2018 (The role of Forensic Anthropology in the medicolegal deathinvestigation).

Presented at the 2nd regional DVI conference in Abu Dhabi 2022 (UAE DVI team achievements).

Publication:

Thorne H, Devereux L, Li J, Alsop K, Christie L, van Geelen C T, Burdett N, Pishas K I, Woodford N, Leditschke J, Izzath M H M, Strachan K, Young G, Jaravaza R D, Madadin M S, Archer M, Glengarry J, Iles L, Rathnaweera A, Hampson C, Almazrooei K, Burke M, Bandara P, Ranson D, Saeedi E, McNally O, Mileskin L, Hamilton A, Ananda S, Au-Yeung G, Antill Y, Sandhu S, Savas P, Francis P A, Luen S, Loi S, Jennens R, Scott C, Moodie K, Cummings M, Reid A, Reed A M, Bowtell D, Lakhani S R & Fox S (2023) Histopathology. <https://doi.org/10.1111/his.14906> BRCA1 and BRCA2 carriers with breast, ovarian and prostate cancer demonstrate a different pattern of metastatic disease compared with non-carriers: results from a rapid autopsy programme.

Medical licences:

Medical council of Ireland 07/2006 to 12/2012.

Department of Health (DOH) Abu Dhabi 06/2010 to date.

Medical board of Australia and AHPRA 07/2012 to 09/2022.

9.2 Abstract

Building capacity and ensuring preparedness. The UAE DVI team training accomplishments

Maintaining high standard outcomes and competency of members of a Disaster victim identification (DVI) team requires detailed planning and ongoing regular training in advance. This ensures that the DVI team members across all the disciplines involved and in a multiagency collaborative manner, will receive appropriate training in accordance to the Interpol guidelines and internationally recognized practices, hence ensuring preparedness and achieving competency.

As the first Arab member of the Interpol steering group and current chair of the Interpol, the United Arab Emirates DVI team represented by Abu Dhabi police GHQ was faced with the challenge of setting up the team, building awareness on the importance of the Interpol DVI practices and delivering ongoing training that caters for all the disciplines involved. The efforts in place, dating more than a decade back, have evolved and expanded to involve multidisciplinary, multi governmental agencies training that address different aspects of the DVI process in the Arabic language.

We present the efforts made by the UAE DVI team in training multidisciplinary, multi governmental agency members and opportunities for expanding the team at a national level.



Major.Expert Khudooma ALnuaimi

MSc. in forensic anthropology in the University of Central Lancashire, UK . MBA
Expert in Forensic Biology section, Department of Forensic Evidences in the Abu Dhabi Police GHQ

I0.I Biography

Major.Expert Khudooma ALnuaimi graduated from the Faculty of Sciences in the United Arab Emirates University in Al Ain in 1999 with B.Sc in Biological Sciences. He completed in 2008 his MSc. in forensic anthropology in the University of Central Lancashire in the United Kingdom also he completed an MBA program in the University of Strathclyde of UK in Abu Dhabi. He is working in the Forensic Biology section, Department of Forensic Evidences in the Abu Dhabi Police GHQ, ministry of interior which he joined in 2000. His duties include attending crime scene investigation, laboratory examination of evidences, and training new staff. His research interest includes forensic anthropology, forensic biology, forensic entomology, and the use of forensic science in biosecurity issues. He is a member in the American Academy of Forensic Sciences and the international Association of Identification. He participated in 2005 in the identification of war victims in Bosnia and Herzegovina using forensic anthropology. He has attended several local and international conferences and workshop.

10.2 Abstract

The application of forensic anthropology in burned bodyremains examination

Forensic anthropology is the application of physical anthropology and other related sciences in the legal cases. This include sexing, ageing, racial and stature estimation. In addition to crime scene reconstruction using human remains condition. Its usually focus on the search, recovery, examination, and testing of human remains. Fire accident and arson cases could have victims which can be found either completed or fragmented and burned remains. Analysis of burned human remains from fire accident can be considered as a real forensic challenge as the thermal exposure will lead to loss, fracture, alteration of soft and hard tissue.

Fire victims in home, cars, and air plane accident need to be examined in order to identify them and to understand what happened to them. Did they die before or during the fire? How many victims are there in the scene? How to deal with unknown or clear human remains? How we can collect and recover human remains from fire accident without further damaging them. These are some of the problems which are needed to be addressed.

This research paper will use case study methodology to examine the application of forensic anthropology to burned human remains deification. The best practice of the field will be discussed. After receiving the call, the forensic anthropology should move to the scene and help in evaluation and planning for human remains search and recovery using principles of forensic archaeology. It's important in this stage to be very careful not to further damage the remains. Some human remains can be also very fragile to be recovered. The recovery location is very important to be reported in the crime scene sketch. Human remains should be moved in an organized packaging to the morgue or forensic anthropology laboratory. Human remains should be reexamination and recorded by size, type, right or left, weight, color and trauma present or absent. CT scan or x-ray of the remains is must to reach identification and more information.

Applying forensic anthropology in the field of burned human remains searching, documentation, recovery, inventory, examination for trauma and thermal evaluation was very important to reach several information on several forensic cases worldwide. The cooperation between forensic anthropologist and forensic pathologist is must to reach clear and consistent information about examination of the human remains.



Dr. Younis Albalooshi

German board in Forensic Medicine

Head of Forensic Medicine department, General Department of Forensic Science and Criminology, Dubai Police

II.I Biography

- Consultant forensic physician, Senior Forensic Medico–legal Expert,
- Ex Head of research and awareness department.
- Head of first Erada International Conference in Addiction 2018.
- Medical counselor for the government of Hamburg.
- Member of the scientific committee of Emirates Forensic.
- Lecturer of Forensic Medicine, Dubai Police Academy, Sharjah Police Academy, Dubai Judicial Institute.
- Presented many papers in the international conferences.

II.2 Abstract

The role of Dubai Police forensic sciences experts in a semi-disaster fire accident.

Fire accidents are frequent occurrences worldwide despite advanced precision measurements and high safety standards. One reason being, each incident is dissimilar and with varying causes. There are numerous factors that affect like different entity's approach, the consequent, the number and nature of the loss. Some fire incidents are managed at initial stage without any human victims while some escalate to a disaster level and go beyond control with no protocol to follow.

This presentation recounts a fire incident that occurred in a building, in a crowded locality in Dubai with the focus on how the forensic experts responded. The Crime Scene Department is the front line which involves various experts from different departments hence were the first on scene. The number of the victims were unknown. To begin with, the confirmed dead bodies at the scene were immediately transferred to the mortuary and the alive victims were transferred to the emergency department of a hospital. Then, examinations were carried out at the Forensic Medicine Department to establish the identifications, to determine cause of death and to exclude any reason for suspicion. Different methods were used to identify the bodies to confirm identification. In the end, all bodies were identified and the cause of death was determined in all them.

It will discussed how the different departments of the General Department of Forensic Sciences and Criminology responded to the incident as a multi-disciplinary team. Furthermore and will be emphasized on the positive points in disaster management, the recommendations and how real life occurrences are opportunities for learning. How they can be beneficial to build more enhanced protocols for mass disaster management and are better for future planning.



MR Adel Muhammad Ali Makhlof

Bachelor of Education in Nature and Chemistry, Bachelor's degree in Natural Sciences, Faculty of Science, Assiut University, Diploma in Legal and Police Studies, Egyptian Police Academy, Retired Police Major General

I2.1 Biography

An internationally accredited expert in the field of fire, explosives and crime scene examination. Member of the General Union of Arab Experts of the League of Arab States. Member of the Egyptian Society of Forensic Evidence. And a criminal science consultant. Member of the scientific committee at the Egyptian legal training and consulting centers and the General Union for Combating Terrorism.

Lecturer at the Faculty of Law, Assiut University, Center for Security Studies.

Training Courses: The main difference for the investigation of criminal evidence, Basic squad for inspection and examination of the crime scene, Division examining the effects of weapons and machinery, Counterfeiting and forgery examination team, Fire Examination Team, Bomb Clearance Squad and Decoys. Complementary squad to detect and secure explosive materials. Central Command Team.

Advanced team to examine the effects of fire. Crime Scene Squad and DNA Fingerprinting Applications. The upper division to examine the effects of fire Basic squad for civil protection and rescue. The advanced squad for detecting and securing explosive materials.

Lecturer at the Faculty of law Suhag University center for security studies, Sohag Law Institute and Qena. lecturer at the Faculty of Medicine Assiut University for Forensic Medicne, Faculty of Medicine Menoufia University Department of F orensic Medicine on criminal nvestigation of poisoning lecturer at the Faculty of Medicine, Kasr EL Aiiny, Cairo University on Investigation of poisoning incidents.

Lecturer at Naif Security University Riyadh on preperation of explosives from slime

Keynote speaker al Naleef Ubniversity 5th International COnference on forensic Medicine, participating with a detailed study of the terrorism

Share a research paper on technological development and information crime, faculty of law Mansoura University
Lecturer in many training courses in Assiut security directorate

Educational courses in Police Training Center and Civil defecnce institute, Egypt

Lecturer in oil and refining companies in Assiut , Evacuation and emergency plans .

Publications: THE TERRORISM SERIES, 3 VOLUM ES, IN PRINT, THE VOICEI M PRINT BOOK, PRINTE D BY ALFA

PUBLIS HING HOUSE, AL G ERIA, 202 2 .

RESEARCH PAPER TH E ROLE OF EXPERIENCE IN OVERCO MING FINGERPRINT PROBLE MS. JOURNAL OF LAW AND INTER D ISCIPL INARY SCIENCES IN AL G ERIA,

A RESEARC H PAPER ON T H E ROLE OF LABORATORIES IN SUPPORTING SUSTAINABLE D EVELOP M ENT, JOURNAL OF LAW AND

INTER D ISCIPL INARY SCIENCES IN AL G ERIAA

RESEARC H PAPER IN T H E JOURNAL OF LAW AND INTER D ISCIPL INARY SCIENCES IN AL G ERIA.

INTERVENTION AT D JEL FA CONFERENCE, FACULTY OF LAW, ZAYAN AS HOUR UNIVERSITY, A T HOROGH STUD Y OF T H E P H ENOMENON OF TERRORISM .

RESEARCH PAPER PARTICIPATING SPEAKER IN T HE INTERNATIONAL CONFERENCE OF FACULTY OF LAW, M ANSOURA UNIVERSITY TECHNOLOGICAL DEVELOP M ENT AND INFOR M ATION CRI M E AND ITS REPERCUSSIONS ON SECURITY

12.2 Abstract

The Role of Technical expertise in examining the Bombing crime scene

Explosives are chemical substances (compounds or mixtures) that react to heat, impact, or friction, causing a disruption in their particles (chemical reaction). This transformation results in the release of enormous quantities of gases, pressure, and high heat, generating immense destructive force.

Explosives are also known as materials capable of rapidly producing gas and energy with high speed. Technically, explosives refer to any substance capable of causing a detonation, producing a loud sound accompanied by varying degrees of destructive effects, depending on the size and type of the material.

An explosion is a violent burst accompanied by shockwaves, high temperatures, and a loud sound. Practically, an explosion occurs when an explosive material is exposed to specific heat, impact, or friction, leading to its reaction and the release of its destructive effects.

Explosives are a mixture or combination of chemical substances that vary depending on the types used, such as RDX (hexogen), nitroglycerin, PETN, TNT, and more. Explosives are categorized as conventional military explosives and homemade explosives. The latter includes materials used by terrorists, often new and unfamiliar in the world of explosives. These materials are known as dual-use chemicals or precursors, which are necessary for manufacturing homemade explosive devices.

These dual-use chemicals include substances that may not be inherently explosive but can become explosive when interacting with other materials, enhancing their explosive effectiveness. Terrorists exploit common materials like sulfuric acid (battery acid), acetic acid, nitrates, acetyl chloride, organic solvents, and more, which are easily accessible and used in manufacturing explosive devices.

Addressing homemade explosives requires strategic security measures, including controlling the sale and trade of such materials, educating personnel on detection and handling, and utilizing advanced scientific techniques for detection and prevention. This is crucial to develop effective security strategies to combat terrorism, maintain the safety of citizens and the nation.



Major.Expert Khudooma ALnuaimi

MSc. in forensic anthropology in the University of Central Lancashire, UK . MBA
Expert in Forensic Biology section, Department of Forensic Evidences in the Abu Dhabi Police GHQ

I3.I Biography

Major.Expert Khudooma ALnuaimi graduated from the Faculty of Sciences in the United Arab Emirates University in Al Ain in 1999 with B.Sc in Biological Sciences. He completed in 2008 his MSc. in forensic anthropology in the University of Central Lancashire in the United Kingdom also he completed an MBA program in the University of Strathclyde of UK in Abu Dhabi. He is working in the Forensic Biology section, Department of Forensic Evidences in the Abu Dhabi Police GHQ, ministry of interior which he joined in 2000. His duties include attending crime scene investigation, laboratory examination of evidences, and training new staff. His research interest includes forensic anthropology, forensic biology, forensic entomology, and the use of forensic science in biosecurity issues. He is a member in the American Academy of Forensic Sciences and the international Association of Identification. He participated in 2005 in the identification of war victims in Bosnia and Herzegovina using forensic anthropology. He has attended several local and international conferences and workshop.

13.2 Abstract

Designing and conducting an effective police training in Blood pattern analysis

Blood pattern analysis (BPA) is the analysis and interpretation of bloodstains in crime scene and on the examined items. The specialist will examine the size, shape, distribution and location of bloodstains. This analysis will explain and assess the crime investigation process by inferior what did and what did not happen. The goal of an effective training is to help learning and student to increase and improve their awareness, performance, and capacity to achieve the training outcome in their daily work. The important of this research that it will help to design and conduct an effective blood pattern analysis for the police forces.

Several organization and individual worldwide conduct training in blood pattern analysis which found blood pattern analysis a challenging field. The training will face several challenges such as unclear goals and objectives, unpractical training, not engaging student in training, overload of information without practical side in a short time, using unaccepted study material, not building a trainee experience, lack of support and encouragement to student, and not connecting training to real life scenarios.

The research will depend on case study research methodology. Blood pattern analysis training conducted by the author in Ras Al Khaimah police and in Ajman crime scene training village. This approach will allow in-depth and multi-faceted explorations of complex blood pattern analysis training issue in their real-life setting regarding real case scenario. This will be part of the blood pattern analysis training problems. Survey of trainee opinion on training will be discussed.

The result of this research indicate that an effective training in blood pattern analysis will include understanding blood pattern theory, terminology such as differentiation between altered stain, accompanying drop, blood clot, cast-off pattern, drip pattern, directionalities, insect stain, impact pattern, parent stain and forward spatter pattern. The trainee will be able to conduct experiment by themselves and do the interpretation of several scenarios.

Third Day 01/II/2023 HALL (B)

Talk

09:00–09:20 AM

Professor Dr Heba Youssef Mohamed Sayed Head of Forensic Medicine and clinical Toxicology Department Faculty of Medicine Port Said University

Recent Synthetic Drug Abuse Toxicity & Management



Talk

09:20–09:40 AM

Dr. Wael M. Fathy Forensic Chemistry Consultant,
Center of Forensic and Digital Science, Judicial
Department, Abu Dhabi, UAE

United Nations Population Fund (UNFPA): Egypt best practice



Talk

09:40–10:00 AM

Prof Amira Dorra Head of Forensic Toxicology
Laboratory at Mahmoud Yacoub Center for Medical
Urgent Assistance CMYAMU of Tunis

Forensic epidemiology in Tunisia: The emerging of
alternative matrices to monitor illicit drugs use and
changing habits of local use patterns



Talk

10:00–10:20 AM

Major. Aysha Malalla Alshehhi Forensic evidence expert in
chemistry and toxicology department Forensic laboratory
section Sharjah Police

Drug profiling: An exploratory study Methamphetamine



Talk

10:20–10:40AM

**Ahmed Salah Eldin Ahmed Gouda Poison control center,
Cairo university, Egypt**

**Plant–origin intoxicants as challenging risk for local
toxicology laboratories**

**Talk**

10:40–10:50AM

**Fatma Ahmed AlShehhi Forensic Chemist
RAK Police, UAE**

Methamphetamine addiction

**Talk**

10:50–11:00AM

**Fayza AlShehhi Senior Forensic Lab Specialist,
Ras AL-Khaimah Forensic laboratory, UAE**

Body packer syndrome

**Workshop**

11:00–12:50 PM

Scenesafe Evidence Recovery Systems Workshop

Workshop

13:00–14:10 PM

Sexual assault kits

CLOSING CERemony

LUNCH





Prof Dr Heba Youssef Sayed

Vice Dean For Postgraduate studies and Research Affairs
Head of Forensic Medicine and clinical Toxicology Department Faculty of Medicine Port Said University

O.I. Biography

Vice Dean for Post graduate studies Faculty of Medicine Port Said University

Dr Heba works on diagnosis and management of acute intoxicated cases Drug Safety, Quality of management of acute intoxicated patients , Drugs and substance abuse diagnosis and treatment of overdose , Management of acute insecticides poisoning , Management of toxic alcohols intoxication , Management of natural toxins , Management of environmental poisons , Environmental Risk Assessment, Risk analysis , Food Toxicology, She has teaching Experience in:

Teaching clinical toxicology for undergraduate students at ASU since 2000 until October 2014

Teaching Clinical Toxicology for postgraduate students at ASU since 2005

Teaching _clinical Toxicology for Undergraduate students at PSU since 2014 till now

She has may publications including

Adverse drug reaction ADRs book in pharmaceutical care for pharmacy students 2008.

Clinical toxicology and forensic E-book 2009.

Crisis and disaster management book 2011–2012

Crisis and Disaster Management for medical sector 2013–2014_

Medical Toxicology book first edition , 2018

Quality of Healthcare services book , part one and two first edition 2019

Project Management:

Successfully completed training course of project management quality assurance unit , Faculty of Medicine ASU 2007

Establishment of Medical Crisis Management Unit ASU , 2009–2014

Successfully completed course of project Management AUC, Egypt 2013

Collaboration with toxicology department ministry of health in designing a training program for raising the competence of Healthcare physicians on management of acute intoxicated patients and in establishment of Poison control units in Port Said ,Domiatta ,and Ismailia General Hospitals.

O.I. Abstract

Recent Synthetic Drug NPS Abuse Toxicity & Management

Recent Synthetic Drug Abuse RSDA or new psychoactive substances NPS became widely used nowadays by youth in different countries allover the world. However they mimic the toxic effects of existing illicit drugs such as cannabis, cocaine, MDMA and LSD but their there is a limited research on the short- and long-term effects of these substances. Moreover some synthetic drugs can be marketed as <legal>, safe and acceptable alternatives to illicit drugs. However, this does not mean that they are legal or safe. Recent Synthetic drugs can cause many hazardous acute toxic effects since they are not quality controlled or dose regulated. It is hard to know how harmful these drugs are in any dose. However synthetic cannabis, opioids, amphetamine designers are reported to have more serious toxic effects .It is recommended to know the toxicodynamic, clinical presentation and guidelines of management of these synthetic drugs of abuse for better clinical outcome of intoxicated victims.



Dr. Wael M. Fathy

Post–Doctoral Fellowship Texas Southern University, School of Public Affair, Forensic Department, Houston, Texas, United States of America, PhD Biochemistry
Forensic Chemistry Consultant, Center of Forensic and Digital Science, Judicial Department, Abu Dhabi, UAE.

2.1 Biography

Dr. Wael M. Fathy, Forensic Chemistry Consultant, Center of Forensic and Digital Science, Judicial Department, Abu Dhabi, UAE.

Post–Doctoral Fellowship Texas Southern University, School of Public Affair, Forensic Department, Houston, Texas, United States of America, Ph.D. Biochemistry – Faculty of Science –University of Cairo 2009. Master Biochemistry – Faculty of Science– University of Cairo 2004.

Forensic Toxicologist Technical Supervisor in Forensic and Toxicology Laboratory, Forensic Medicine Authority Cairo – Egypt. Work as Ass. Professor in Forensic and Toxicology Department, Faculty of Medicine – Beni Suef University–Egypt, and in University of Modern Science, School of Biotechnology, forensic department, Dubai, UAE. Member of the International Association of Forensic Toxicologists (TIAFT). General Secretary of the International Association of Law and Forensic Science (IALFS).

Training in the Institute of Legal Medicine and Forensic Science CHARITE in Berlin– Germany 2013, in the field of (a) Qualitative and Quantitative drug analysis. And experiences in the detection and estimation of pesticide residues in biological samples, at the Agricultural Research Center, Pesticide Central Laboratory.

Sharing with the Egyptian forensic team in extracting the human remains and the airplane debris from the Mediterranean Sea with Deep Ocean Search Ltd. Company of the crashed Egyptian airplane (2016).

Has a good experience in (laboratory accreditation and quality assurance) (General Requirements for the competence of Testing & Calibration in Forensic Laboratories according to (ISO /IEC I7025:2017),

Appear before the courts for an opinion and discussion of reports submitted in criminal cases.

Dr. Wael Fathy has a lot of publications in the field of forensic chemistry and biochemistry.

Two years of experience in the field of bio–analysis and toxicology laboratory for analysis of pesticides Central Agricultural Research Center – Section of toxic pesticides and aquatic mammal

Twenty–five years of experience in the field of forensic chemistry, laboratory accreditation and quality assurance in Egypt and UAE.

2.2 Abstract

The Relationship between Agouti Related-Protein (AgRP) and Leptin in methamphetamine abuse

Leptin is an adipocyte-derived hormone that is secreted in correlation with total body lipid stores. Cannabinoids components of cannabis are known to exert behavioral and psychotropic effects. Agouti is a 131 amino acid peptide made by dermal follicular cells that acts as a specific high affinity antagonist of the MCT-R. Agouti related protein (AgRP) Aim Try to find out, the food intake mechanism, of subjects under Investigation, who are methamphetamine abuse, by study the relationship between the most two popular hormones controlling food intake (leptin hormone, and agouti related protein hormone), comparing with healthy subjects Methods: Four groups every group: as the following:

Group I (CI) consisting of ten 10 men with positive methamphetamine in their urine with normal weight, and BMI ranged from (18–20) kg/m²

Group II (GII) consisting of ten 10 men with positive methamphetamine in their urine with obese weight, and BMI ranged from (30–35) kg/m² Group III (Clil): consisting of ten 10 control healthy males with normal weight and BMI ranged from (18–20) kg/m², as volunteers and their urines are free of drugs

Group IV (CIV): consisting of ten 10 control healthy males with obese weight and BMI ranged from (30–35) kg/m², as volunteers and their urines are free of drugs.

All urine samples will qualitative analysis using Gas Chromatography-Mass spectrometry (Agilent 6080N-capillary column 30m– 1/4 diameter) collected from forensic medicine institute chemistry lab. Cairo, Egypt. Age will be matched; diabetic subjects were excluded. Plasma leptin concentration was measured by quantitative radio immunoassay (RIA) using a kit supplied from diagnostic systems Laboratories (DSL) Inc. (445 medical center BLVB. WEBSTEER TX 77598 USA. Human plasma AgRP hormone was quantitatively measured by using a kit supplied from Quantikine R&D systems INC. (614 McKinley Palace Minneapolis, MN 55473, USA.)

The relationship between plasma leptin concentrations and plasma AgRP concentrations affected by methamphetamine abuse, and that may change the mechanism or foodintake.



Prof Amira Dorra

Professor at the Faculty of pharmacy of Monastir (Tunisia).
Head of Forensic Toxicology Laboratory at Mahmoud Yacoub Center for Medical
Urgent Assistance CMYAMU of Tunis

3.1 Biography

Pr. Amira Dorra, University Hospital Professor at the Faculty of pharmacy of Monastir (Tunisia). Head of Forensic Toxicology Laboratory at Mahmoud Yacoub Center for Medical Urgent Assistance (CMYAMU) of Tunis. Expert in clinical and forensic toxicology and drug analysis. Specialist in Substance Abuse: prevention, treatment of addiction, regulation and research, certified by the US Department of Health and Social Services (Virginia Department of Behavioral Health and Developmental Services, USA). Expertise in analytical and forensic toxicology, validation of analytical methods respecting FDA standards, Experience at Commonwealth University of Virginia VCU, USA (Department of Pharmacology and Toxicology). Co-author of more than 35 articles.

3.2 Abstract

Forensic epidemiology in Tunisia: The emerging of alternative matrices to monitor illicit drugs use and changing habits of local use patterns.

During the pre-revolution period (before 2011), Tunisia was considered a transit country. But in the post-revolution period, the use of illicit drugs is no longer the prerogative of a well-defined economic class, today it is accessible to all, in the working-class neighborhood as well as in the most prestigious neighborhood. Currently, given the social instability, we are witnessing an upsurge in drug trafficking and consumption with the appearance of new molecules. In this present work, we investigate the problem of drug addiction with its different socio-epidemiological aspects.

Conventional Forensic toxicology investigation performed on people suspected to be drug abusers covering the north Tunisian cities was conducted by monitoring an epidemiological study of human urine samples surveying positive rates of consumption for drugs of abuse. The forensic investigations were conducted on a total of 44000 arrested individuals suspected to be drug addicts during ten years (2010–2019). An immunoassay screening tests to detect elevated levels of drugs classes in urine samples was performed. These screening assays provide a preliminary qualitative test result. Only positives urine specimens were analyzed with GC-MS for confirmation. Except for cannabis, the results showed insignificant number of positive cases for cocaine, ecstasy (MDMA) and amphetamine consumption (<1%).

For several years in Tunisia, we believed that the consumption of illicit drugs was inconsiderable, although a large illicit drug use happens off-the police radar. A more realistic picture of local use patterns for the most common illicit drugs was assessed via the emerging of environmental alternative matrices than the biological specimens in order to monitor illicit drugs use and real-time changing habits of local use patterns. Thus, Cocaine consumption for example was back-calculated in 2019 from the measured daily loads of its major metabolite benzoyl ecgonine at the entrance of Wastewater Treatment Plant (WWTP) of the capital Tunis was established. The NEI region shows the highest consumption with 179.8 mg/day/1000 inhabitants.

It is assumed that the wastewater approach reflect more closely the actual levels of cocaine consumption through the analysis of human biomarkers in influent wastewater. The approach could be useful for monitoring in real-time the community drug abuse, helping scientists and social authorities to combat drug trafficking as well as protecting human health.



Major. Aysha Malalla Alshehhi

Forensic evidence expert in chemistry and toxicology department
Forensic laboratory section Sharjah Police

4.1 Biography

- Forensic evidence expert in chemistry and toxicology department – Forensic laboratory section Sharjah Police since 2002.
- Graduated from the Faculty of Sciences in the United Arab Emirates University with B.Sc. in chemistry.
- Accredited Auditor and Lecturer from Ministry of Interior in forensic toxicology field.
- Has attended several conferences, workshops as well as numerous courses at police level.

4.2 Abstract

Drug Profiling: An Exploratory Study A–Methamphetamine

Drug profiling is the gathering of information, of any kind, that may assist law enforcement to identify the origin of cultivated and semi-cultivated drugs and the synthetic routes and precursor chemicals used to manufacture fully synthetic drugs. In other words, It is a detailed chemical analysis of a drug seizure.

Clandestine manufacture, trafficking and abuse of methamphetamine and the involvement of large-scale organized criminal groups in these activities, are increasing around the world.

Forensic intelligence of synthetic illicit drugs suffers a problem of continuous introduction of new synthetic methods, modification of the existing routes of manufacture, and adulterations.

The manufacture of ATS continues to be dominated by methamphetamine at the global level.

Methamphetamine (MA) is highly addictive drug with a potent central nervous system (CNS) stimulant properties.

The United Nations Office on Drugs and Crime (UNODC) report MA as the most abused drugs worldwide. For the last two decades, the use of MA has been increasing in many countries worldwide.

120 samples including, crystal, tablets, liquid as well as powder, have been analysed so far using both liquid–liquid extraction and SPME.

All the samples were synthesized from P2P. Various adulterants were detected such as lemonin, alprazolam, nicotine, caffeine and paracetamol.

Dimethylamphetamine has been a common adulterants in all samples.

Quantitative analysis was also done for 100 samples which showed that a purity range of 70–80% for most samples.

Study with LCQToF and ICP–MSMS is under way to piece the synthetic routes.



Dr Ahmed gouda

Master of clinical toxicology and forensic medicine, Medical doctorate degree in clinical toxicology, Fellowship of the Egyptian board in management of healthcare facilities (EFHM)
Poison control center, Cairo university, Egypt

5.1 Biography

Dr Ahmed is a Medical doctor working currently as Medical manager and Clinical toxicology consultant at forensic and medical poison control center–Northern borders, Saudi Arabia. And Medical manager of northern borders regional lab–Northern borders, Saudi Arabia.

He is also Clinical toxicology consultant (assistant professor) at National Toxicology Center (NECTR), Cairo University, Egypt, and Clinical toxicology consultant at forensic and medical poison control center–Tabuk, Saudi Arabia. He has worked as the Quality department manager at Katameya clinic hospital, Egypt, Member of the infection control committee of the NECTR. Clinical toxicology consultant at Al–Safwa hospital, Quality manager at Al–Safwa hospital and District manager at Royal Lab laboratories.

He achieved his Bachelor of medicine and surgery, class 2005, and Master of clinical toxicology and forensic medicine, 2011 and Medical doctorate degree in clinical toxicology, 2013.

He has shown great interest in toxicology laboratory management and quality and acquires the Fellowship of the Egyptian board in management of healthcare facilities (EFHM) : (Marketing , quality control , management , strategic management , team building.), 2011. – Certificate of professional project manager II (PMP) from the American project management institute, 2011. and Certified professional of healthcare quality (CPHQ), NAHQ, 2018.

he has participated in many conferences and has numerous published papers including: Comparative study between two Atropine regimens in treatment of acute organophosphorus poisoning (Locally published). – DNA damage in Tramadol abusers (Locally published). – Oxidative damage in Tramadol abusers (Locally published). – Association between the Severity of Tramadol Toxicity and Some CYP2D6 Allelic Variants in Egyptian Tramadol Intoxicated Patients (Emergency medicine DOI: 0.4172/2165-7548.I000303) and many others

5.2 Abstract

Plant–origin intoxicants as challenging risk for local toxicology laboratories

Plant origin poisons were studied by many previous researches as potent lethal toxins with potential effectiveness in biological warfare. Many incidents were reported on usage of plant origin poisons in criminal cases. Meanwhile, After locally reported misdiagnosed cases of criminal usage of plant poisons. We study the challenges of diagnosis of these cases and the preparedness of local laboratories for investigating suspicious cases.

retrospective data of 10 cases of suspected of criminal plant poisoning were collected. A survey of a 4-item telephone-based questionnaire designed for assessment of knowledge of healthcare professionals on plant toxins. Respondents were invited to enumerate any known toxic plants, plant toxins, plant toxins investigations, and management. We also surveyed 5 local toxicology laboratories on availability of tests for plant poisons. cases of criminal plant poisoning workup revealed deficient analysis for possible plant poisons, in spite of exclusion of different chemical toxins and infectious diseases. A total of 62 healthcare professional completed the survey. None reported any toxic plants, 4 reported ricin as a plant toxin, 4 reported analysis for ricin as an investigation of choice, and 25 reported symptomatic treatment as appropriate management for plant toxins. laboratory survey resulted in deficiency of a validated method to analyse different plant toxins in all surveyed laboratories.

Our results indicate that there is many challenges in diagnosing these cases due to the wide differential diagnosis related to their presentation, similarities of presentations with many other medical diseases, Lack of knowledge of medical personnel on variable plant poisons like Ricins and Abrins, and lack of preparedness of most of local laboratories to analyse plant toxins. Many toxic plants are native to our region like Ricinus communis, Foxglove, Nerium oleander, etc.

medical knowledge for healthcare professionals on lethal plant are deficient. Moreover, the availability of laboratory tests to screen for many plant origin toxins are deficient in local laboratories. We recommend training programs to be held for emergency and public health professionals on plant poisons, and to validate methods for analyses of these poisons in poison control centers.



Fatma Ahmed AlShehhi
Forensic Chemist RAK Police, UAE

6.1 Biography

With over four years of experience as a Forensic Chemist specializing in biochemistry, I have built a solid foundation in the field. My Bachelor of Science degree in biochemistry has equipped me with the necessary knowledge and skills to excel in this role. Moreover, I am proud to be a member of the Saudi Toxicology Society (STS) and have received training in both a forensic lab in Dubai and calibration for GCMS for drugs.

Throughout my career, I have sharpened my abilities to conduct a wide range of analyses and interpret results, crucial in aiding criminal investigations. My unwavering attention to detail and commitment to accuracy in all laboratory procedures have been vital to my success as a forensic chemist.

In my current position, I am responsible for performing various forensic tests and analyses on diverse sample types, always adhering strictly to standard operating procedures. This involves utilizing advanced laboratory equipment and techniques such as gas chromatography and mass spectrometry to ensure a thorough analysis of evidence.

One aspect of my work that brings me immense satisfaction is collaborating with a team of professionals to interpret results and provide accurate reports for court proceedings. This requires effective communication skills and a profound understanding of the scientific principles underlying the conducted analyses.

Furthermore, I am dedicated to staying abreast of the latest advancements in forensic chemistry. I actively engage in research to develop new testing methods and enhance existing protocols, thereby contributing to the overall excellence of the laboratory I am associated with. This drive for innovation keeps me at the forefront of forensic chemistry and enables me to make meaningful contributions to the field.

In conclusion, my unwavering passion for scientific research and my unwavering commitment to accuracy make me a highly skilled and devoted forensic chemist. I constantly seek opportunities to expand my knowledge and enhance my skills, as I am determined to contribute to the field and support criminal investigations to the best of my abilities.

6.2 Abstract

The most common abuse drug in RAK (methamphetamine)

The most commonly abuse drug detected in forensic chemistry unit in RAK police, in the UAE is methamphetamine. Methamphetamine is a synthetic substance that has highly addictive stimulant affects on the central nervous system. It is an altered version of the drug that is cooked in clandestine labs, which may contain additional substances. Methamphetamine comes in different forms, and is abused various ways. In this summary, I will provide an overview of important points about methamphetamine, including its chemistry, physical forms, pharmacology, and mode of abuse. Additionally, I will briefly discuss clandestine labs where methamphetamine is produced and highlight the control status of methamphetamine in the UAE. Furthermore, I will present statistics on methamphetamine samples in the forensic chemistry lab of the RAK Police over the past three years, along with some pictures of related cases.



Fayza AlShehhi

Senior Forensic Lab Specialist, Ras AL-Khaimah Forensic laboratory, UAE

7.1 Biography

MS Fayza has been working as Forensic Lab Specialist Since 2019, IN RAK police Forensic laboratory. In 2023 she served as the Head Unit of the Forensic Chemistry Department Ras Alkhaimah Police, holding the position of Senior Forensic Lab Specialist.

She obtained her B.Sc. in Chemistry from the Faculty of Sciences at the United Arab Emirates University.

To further enhance her expertise, she underwent comprehensive training in Chemistry forensic lab techniques and calibration for GCMS for drugs at the Dubai Police. This training has equipped her with advanced skills and knowledge in the field.

Additionally, She is a proud member of the Saudi Toxicology Society (STS), which allows her to stay connected with professionals in the field and stay updated on the latest advancements and research.

Ms Fayza's role as the Head Unit of the Forensic Chemistry Department requires her to oversee and manage various operations within the lab. This includes supervising a team of skilled professionals, ensuring adherence to standard operating procedures, and maintaining high levels of accuracy and precision in all analyses conducted. She is dedicated to promoting excellence within the department by continuously improving protocols and implementing innovative techniques. By staying updated on the latest developments in forensic chemistry, I strive to provide the highest quality services and support to criminal investigations.

Overall, her position as the Head Unit of the Forensic Chemistry Department, coupled with training and membership in professional societies, has allowed her to develop a strong foundation in forensic chemistry. She is committed to utilizing my skills and knowledge to contribute to the field and support law enforcement agencies in ensuring justice and safety within our community.

7.2 Abstract

Body packer syndrome

Abstract Body packer refers to the intentional transport of drugs inside a body cavity in order to get across borders without being detected. These substances are usually well packed and very tightly packed so that they pass easily when swallowed. This type of drug carriers has reached a high rate of success, due to new and advanced methods of packaging and also to good training of the carriers before they leave. I will point out several points in this paper such as Number of cases received to the lab for the past three years, how this material is packaged, how to handle it for examination, which most commonly drugs we found in it, Finally I will show some of the cases that reached to forensic chemistry unit in RAK police and turned out to be simply drug dealers' fraud on some of their clients.

Third Day 01/II/2023 HALL (C)

Talk

09:00–09:20 AM

Prof. Dr. Emilio Nuzzolese President and Founder of the Civil Protection Association Dental Team DVI Europe

Innovations in Forensic Dental Identification



Talk

09:20–09:40 AM

Dr. Hemlata Pandey Lecturer, Centre for Forensic and Legal Medicine and Dentistry, School of Dentistry, University of Dundee, Scotland, UK

Forensic Odontology – Stories our Teeth Tell

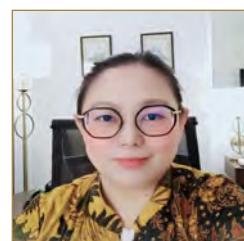


Talk

09:40–10:00 AM

Dr. Evi Untoro Head of Department Forensic Medicine, Faculty of Medicine, University of Trisakti, Jakarta, Indonesia

Update on Technology and Using tools of Post Mortem CT Scanning in the Alternative of Personal Identification and findings on Cause of Death for the Dead Body Management in Mortuary of the Most Populous Muslim Majority Country, the Indonesian Perspective



Talk

10:00–10:20 AM

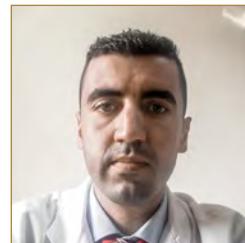
Dr Major Ahmed Sulaiman Abu Hadid Abu Dhabi Police GHQ. Role of forensic odontology in disaster victim identification



Talk

10:20–10:40AM

Assistant Prof. Khaled Annabi Assistant Professor of Forensic Medicine at Ibn El Jazzar Faculty of Medicine, Sousse, Tunisia



Forensic age estimation using computed tomography of the medial clavicular epiphysis in a Tunisian population sample

DISCUSSION

10:40–10:50AM

Talk

11:00–11:20AM

Pr. Djamil Azzouz Faculty of Medicine of Algiers



Effectiveness of histopathologic examination of the heart during forensic autopsies at the department of legal medicine Mustapha University Hospital Centre

Talk

11:20–11:40AM

Dr Mohammed Djilali Merzoug Faculty of Medicine

Dr. Taleb Mourad Sidi Bel Abbes, ALGERIA



The role of pathology in correcting the diagnosis of post-convulsive cerebral sarcoidosis (about a case)

Talk

11:40–12:00PM

Associate Professor Dr. Rania Abdel Mageid Kaka Associate Professor of Forensic Medicine and Clinical Toxicology, Faculty of Medicine, Alexandria University, Egypt

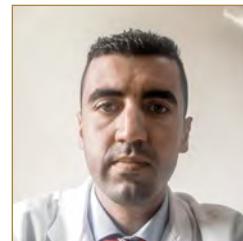


Medico-legal and Clinical Aspects of Iatrogenic Vascular Injuries Induced in Different Surgical Disciplines

Talk

10:20–10:40AM

Assistant Prof. Khaled Annabi Assistant Professor of Forensic Medicine at Ibn El Jazzar Faculty of Medicine, Sousse, Tunisia



Forensic age estimation using computed tomography of the medial clavicular epiphysis in a Tunisian population sample

DISCUSSION

10:40–10:50AM

Talk

11:00–11:20AM

Pr. Djamil Azzouz Faculty of Medicine of Algiers



Effectiveness of histopathologic examination of the heart during forensic autopsies at the department of legal medicine Mustapha University Hospital Centre

Talk

11:20–11:40AM

Dr Mohammed Djilali Merzoug Faculty of Medicine

Dr. Taleb Mourad Sidi Bel Abbes, ALGERIA



The role of pathology in correcting the diagnosis of post-convulsive cerebral sarcoidosis (about a case)

Talk

11:40–12:00PM

Mrs Fatma mohammed Aldhahouri

Bachelor in chemistry

Forensic Chemist Ras Al Khaimah Police, UAE



Medico-legal and Clinical Aspects of Iatrogenic Vascular Injuries Induced in Different Surgical Disciplines



Talk

12:00–12:20PM

Pr.ag Massinissa Benyagoub faculty of medicine
university of Laghouat, Algeria



**Death of an accused in a court after the announcement
of the verdict: interest of the autopsy**

DISCUSSION

12:20–10:30 PM

Talk

13:00–13:20PM

Dr. Moutasim Ibrahim Suleiman Drug & Poison
Expert, Head of Toxicology Unit, RAK police Forensic
Laboratory , UAE

Toxicology Unit activities , beyond routine activities



Talk

13:20–13:40PM

Khalid Suliman Osman Adam Forensic Chemist
RAK Police, UAE



Artificial Intelligence has the potential to change the
discovery of different narcotics drugs and impact , uses
and safety , important for the practice of toxicology

Talk

13:40–14:00PM

Associate Professor Dr. Rania Abdel Mageid Kaka Associate
Professor of Forensic Medicine and Clinical Toxicology, Faculty
of Medicine, Alexandria University, Egypt

Food contamination



DISCUSSION

14:00–14:10 PM

CLOSING CERMONY

LUNCH





I – Prof. Dr. Emilio Nuzzolese

DDS, LLB, MSc, PhD

President and Founder of the Civil Protection Association Dental Team DVI Europe

I.I Biography

Forensic Odontologist and Associate Professor in Forensic Medicine, Head of the Human.

Identification Laboratory at the Medicolegal Institute of Turin, Italy, and Honorary Juvenile Judge at the Juvenile Course in Bari, Italy.

Program Lead in Forensic Odontology training and Director of the Disaster Victim Identification Training Course in the University of Turin.

Graduated in dentistry (DDS) and in Science in Law (LLB) at the University of Bari, Italy. Holds post-graduate diplomas in Legal Medicine, Forensic Sciences, and Forensic Odontology, and a Research Doctorate degree (Ph.D.) in Cranio-Facial Superimposition.

Officer of the Italian Red Cross Military Corps and member of the Mass Fatality Victims Unit of the Italian Red Cross Military Corps.

Participating odontologist in the Interpol DVI Forensic Odontology Sub-Working Group, 2010–2023.

President and Founder of the Civil Protection Association Dental Team DVI Europe. Founder, Past-President and President-Elect of the Association Forensic Odontology for Human Rights (AFOHR).

Author of 80 publications in international journals in the field of forensic odontology, human rights and child abuse, 6 contributions in books, 2 monographs on children rights and over 300 contributions in international congresses and events of legal medicine and forensic dentistry.

O.I. Abstract

Innovations in Forensic Dental Identification

Forensic dental identification is a crucial tool in the identification of human remains. The field has undergone significant advancements in recent years, particularly in the realm of technology. The future of forensic dental identification promises to be even more innovative and efficient, with emerging technologies that could revolutionize the field. One of the most promising advancements is the use of 3D technology in dentistry as well as in forensic odontology. Dental records and teeth can now be scanned and reproduced in 3D, enabling forensic experts to create accurate and detailed models for identification purposes. Additionally, an emerging trend is the use of artificial intelligence, superimposition techniques and teleconsultations in forensic dental identification. These technologies can assist forensic experts in analyzing and comparing dental records and offer second expert opinions, streamlining the identification process and respect in best practices in human identification. The presentation will focus on the future of forensic dental identification with technologies that could significantly enhance the efficiency of the identification process. As these technologies will continue to evolve, forensic odontologists can expect to make even more significant contributions to the field of forensic science.



2– Dr. Hemlata Pandey

Forensic odontologist and qualified lawyer.

Lecturer, Centre for Forensic and Legal Medicine and Dentistry, School of Dentistry, University of Dundee, Scotland, UK

2.1 Biography

Dr. Hemlata Pandey is a full-time forensic odontologist and is a qualified lawyer. She is working as a lecturer at the Centre for Forensic and Legal Medicine and Dentistry, School of Dentistry, University of Dundee, Scotland, UK and is programme lead for full-time postgraduate courses in MSc Forensic Dentistry and Masters in Forensic Odontology. She regularly provide expertise for identification of unidentified human remains to The Crown Office and Procurator Fiscal Service (COPFS), which is Scotland's public prosecution service and death investigation authority.

Dr. Pandey is President, Association Forensic Odontology for Human Rights (2021–2023) and is also Academic Advisor at the Indian Board of Forensic Odontology. She is involved in training for forensic science and forensic odontology students and professionals across India and other countries in Asia, Europe, Africa, North and South America since 2013. Prior to working in the UK, she provided expertise to various State Police departments in India and Central Bureau of Investigation (CBI, India). She has been deployed at several incidents for disaster response over the 15 years of her career as a Forensic Odontologist.

Dr. Hemlata Pandey is a two-times TEDx Speaker, and features in mainstream media reports, newspapers, TV news and documentaries (Netflix) for her work in the field of forensics.

2.2 Abstract

Forensic Odontology – Stories our Teeth Tell

Forensic Odontology is that field of dentistry which deals with identification, collection, handling, analysis and reporting of dental evidence. Dentists play a crucial role in crime investigations for identification of unknown human remains, bite mark analysis, dental age estimation, dental anthropology, etc. Unknown human remains are found by investigators in all types of environments, indoors and outdoors. They may be found in advanced stages of decomposition, incinerated, skeletal, mutilated, commingled, or charred in condition.

Cultural practices such as cremation or burial will have influence such as fragmentation and taphonomic changes caused by soil, water, plants, etc. As a method in identification process, forensic odontology has a major part to play, sometimes being the only technique available for establishing decedent's age, sex, ancestry and skeletal idiosyncrasies. Teeth, being one of the hardest structures in human body, they can be recovered from most scenes during investigations, although it may be difficult to find all dental fragments associated with burnt remains in all circumstances.

Reconstructive techniques of identification can also prove useful in criminal cases where there is an attempt to conceal identity of the victim by burning or mutilation. A multidisciplinary approach and interaction with investigating agencies is critical for developing the field of forensic odontology in developing countries.



Dr. Evi Untoro

Head of Department Forensic Medicine, Faculty of Medicine, University of Trisakti, Jakarta, Indonesia.

3.1 Biography

Forensic Pathologist, also consultant in Forensic Anthropology, Forensic Genetic/ DNA, Forensic Radiology/ Imaging; Head of Department Forensic Medicine, Faculty of Medicine, University of Trisakti, Jakarta, Indonesia. Lecturer of Forensic and Medicolegal Department for Clerkship Student Faculty of Medicine, University of Atma Jaya at General Hospital R. Syamsudin SH, Sukabumi, West Java. Teaching Forensic & Medicolegal and DVI Training at some Universities and Institutes at Trisakti University, Catholic University of Atma Jaya, Jakarta, Indonesia; King George University, Lucknow, India; Lovely University, Phagwara, India; GFSU/ NFSU, Gujarat, India; 7 th INPAFO Sudan, North Africa; Online teaching workshops Middle East, India, Phillipine, Japan (Japanese Association of Forensic Odontology, Tokyo, Kyoto & Iwate University, Japan), Turin University, Italy, IBFO (Indian Board of Forensic Odontology), India. Graduated M.D from University of Atma Jaya Jakarta, Indonesia, Post Graduated Forensic Pathologist Specialist University of Indonesia, Jakarta, Indonesia, Master in Economic Management and Hospital Management, University of Pelita Harapan, Jakarta, Indonesia. Workshops on DVI, Forensic Anthropology, Forensic DNA/Forensic Genetic, Forensic Radiology/ Imaging, at Indonesia, Srilanka, Portugal, Turkey, France, Prague, Italy, South Korea, Netherlands, Australia, China, Japan. Ex officio Vice President of INPALMS (Indo Pacific Association of Law Medicolegal and Sciences); Member of the Sub Working Group of Pathology and Anthropology DVI INTERPOL; Executive Board of AFOHR (Association of Forensic Odontology on Human Rights), International Relation Division in Indonesian Association of Forensic Medicine (PDFI), Member on The Legal Bureau for the Development and Defence of Members (BHP2A), Indonesian Medical Association, West Jakarta, Indonesia Author and co-author of some publications in international journals in the field of forensic sciences, forensic odontology and child abuse, 8 contributions in books, some poster on Management of the Dead Body in Covid-19 with ICRC (International Committee of Red Cross) and more than 100 contributions in international congresses and events of forensic and medicolegal.

O.I. Abstract

Update on Technology and Using tools of Post Mortem CT Scanning in the Alternative of Personal Identification and findings on Cause of Deathfor the Dead Body Management in Mortuary of the Most Populous Muslim Majority Country, the Indonesian Perspective.

Autopsy in the “Old Text” will cause the pain on the death and it have five hadiths impermissible in Islam. But, there are also fiqh on the autopsy performance, that in the time to find the cause of death of the person, it permissible. also for identified the missing person, to declare the status of the husband/ wife and on relieved and bereavement of the family, so they can go on with their life, resilient and moving forward. Indonesia the most populous muslim majority country, in the period of ten years from 2013 to 2023 plus the Covid-19 pandemic era, the rate of the autopsy has been decreased, some by the facilities that not possible to conduct the autopsy cases such as rural area and lack of forensic pathologist on the field, mostly because the rejection of the family to do the autopsy on the dead body. This is happening globally as well in the Indo Pacific region and European region. The alternative to conduct rejection on the autopsy is using the Post Mortem CT Scanning, the permanent or portable one. Some of the result can be use to identified the person by comparing the ante mortem and post mortem data, looking for trauma, and findings the cause of death. Here. we share two of the cases using PMCT Scanning in Jakarta, Indonesia. The family satisfied with the system and result. Forensic Pathologist and Police as investigator can make the report and conclusion on the case. Autopsy is open incision to the dead body, PMCT Scanning as an alternative on personal identification of the missing person and looking for the cause of death to clear the suspicion. With the update of the technology and using tools on portable CT Scanning, the performance in Dead Body Management at Mortuary is more efficient and effective within time. This tool can be use as an alternative where the rejection on the autopsy cases are high.



4– Dr Major Ahmed Sulaiman Abu Hadid

Swedish Board Certificate in Orthodontics, Master of Science in Orthodontics, and Professional Diploma in Forensic Odontology, Abu Dhabi Police GHQ

4.1 Biography

Dr Ahmed is the Branch Manager and Specialist Orthodontist in the Forensic Odontologist Central Health Services – Abu Dhabi Police HQ. He is also the Specialist Orthodontist – (Founder & Manager) of Mamzar Smiles Specialty Center – Dubai – UAE. he has previously worked as General Dentist, Forensic Odontologist Central Health Services – Abu Dhabi Police HQ from June 2006 till: Feb 2012

He has a Diploma in Forensic Odontology, Sharjah University – Sharjah – UAE, also a Diploma in Forensic Odontology from Sharjah University – Sharjah – UAE Awarded in: Nov 2011 and Certificate of Specialization in Orthodontics from Swedish National Board of Health & Welfare from Malmo University – Malmo – Sweden awarded in: Feb 2011 and Master of Science in Orthodontics from Nicolas & Asp University College – Dubai – UAE 2011 in addition to Certificate in Forensic Odontology from Victorian Institute of Forensic Medicine Melbourne – Australia.

4.2 Abstract

دور طب الأسنان الجنائي في تحديد هوية ضحايا الكوارث

(DVI) تعد بصفة الأسنان الجنائي من المعرفات الأساسية لدى مجتمع تحديد هوية ضحايا الكوارث الدولي والمدرجة ضمن المعرفات الأولية المعتمدة لدى المجموعة الدولية الموجهة لتحديد هوية ضحايا الكوارث لدى منظمة الشرطة الدولية الإنتربول. ولعبت بصفة الأسنان الجنائي دوراً مهماً في تحديد هوية ضحايا الكوارث الكبرى مثل حادث برج التجارة العالمي في نيويورك وكارثة التسونامي. ومقارنة بصفة الأسنان هي أحد العهام التي يؤديها طبيب الأسنان الجنائي، ضمن مهام أخرى مهمة في إدارات الطب الجنائي في مختلف الدول يقوم المحاضر بعرض نبذة سريعة عن مجالات عمل طبيب الأسنان الجنائي، ثم توضيح الدور الذي تؤديه بصفة الأسنان في تحديد هوية ضحايا الكوارث ضمن توجيهات وإجراءات منظمة الشرطة الدولية (الإنتربول) وتطبيقاتها لدى القيادة العامة لشرطة أبوظبي كونها عضواً في المجموعة الدولية الموجهة لتحديد هوية ضحايا الكوارث كأول دولة عربية وإسلامية انظماماً كما يقوم المحاضر أيضاً بيان الفرق بين المعرفات الأولية والمعرفات الثانوية، ومميزات كل نوع من أنواع المعرفات، وشرح وجيز لأساليب التعرف السينية ب مختلف أنواعها ويطرق المحاضر كذلك إلى مقارنة المواقف التي تستدعي الحاجة إلى بصفة الأسنان الجنائي دون غيرها من المعرفات الأولية في تحديد هوية ضحايا الكوارث (DVI).



5– Dr Assistant Professor Khaled Annabi

Assistant in Forensic Medicine

Assistant Professor of Forensic Medicine at Ibn El Jazzaar Faculty of Medicine, Sousse, Tunisia

5.1 Biography

- Assistant Professor of Forensic Medicine at Ibn El Jazzaar Faculty of Medicine, Sousse, Tunisia
- Assistant Professor of Forensic Medicine at the Department of Legal Medicine of Farhat Hached University Hospital, Sousse, Tunisia
- Chairman of the University Diploma of “Medical Law”
- Chairman of the University Diploma of “Medical Ethics”
- Expert with the Tunisian Ministry of Justice
- Expert Member with the Tunisian Organization Against Torture
- Member of the Tunisian Association of Forensic Medicine and Criminal Sciences
- Member of Farhat Hached Hospital Committee of Ethics
- Author of numerous scientific papers in the field of Forensic Medicine

5.2 Abstract

Forensic age estimation using computed tomography of the medial clavicular epiphysis in a Tunisian population sample

Computed tomography scan of the medial clavicular epiphysis plays an important role in age estimation. Our study aimed to validate thin-section CT scan images of the medial clavicular epiphysis according to the Schmeling and Kellinghaus methods in a sample of the Tunisian population and to assess its reproducibility. We examined 196 thoracic CT scans of Tunisian subjects aged under 40 years (126 males, 70 females), carried out in the Radiology Department of Ibn El Jazzar University Hospital in Kairouan, Tunisia, from September 1st, 2018 to April 30th, 2020, with a slice thickness of 0.6 mm. The average age was 22.2 – 7.36 years with extremes ranging from 3 to 40 years.

The majority of the patients were male (64.3% vs. 35.7%) with no significant difference between the two groups ($p = 0.975$). Stage I excludes the age of the majority of male subjects. Stage 3c is a good predictor for estimating the age of the majority of both sexes. We noted a good correlation between age and the ossification stage. No significant difference was noticed either between the two clavicles or between the sexes. Inter-observer and intra-observer agreement were good.

Through our study, we have established a frame of reference and we can conclude that the CT study of the development of the medial clavicular epiphysis represents a reliable method for age estimation in the Tunisian population.



Mr Pr. Djamil Azzouz

Professor–Teacher–Researcher at the Faculty of Medicine in Algiers
Faculty of Medicine of Algiers

6.1 Biography

Associate Professor–Teacher–Researcher at the Faculty of Medicine in Algiers, Alger I University.
First Class Honors in the national competition for access to the position of Hospital–University Teacher–Researcher in Forensic Medicine.
Appointment as a Class A Associate Professor–Teacher–Researcher at the Faculty of Medicine in Algiers, Alger I University.
Specialist Doctor in Forensic Medicine 2011 – 2020 Mustapha Hospital–University Center – Algiers – Algeria.
Founding member and Vice President of the Algerian Academy for the Development of Forensic Sciences (AADSM). <https://www.aadsm.com/aadsm/>
Founding member and Vice Director of the Forensic Anthropology Laboratory.
He has also worked as Specialist Doctor in Forensic Medicine Mustapha Hospital–University Center – Algiers – Algeria. Head of the Isolation and Hospitalization Unit for Detainees Mustapha Hospital–University Center – Algiers – Algeria. Specialist Doctor in Forensic Medicine Thenia Public Hospital Establishment – Boumerdes – Algeria.
He has many publications including , The involvement of neuroinflammation and necroptosis in the hippocampus during vascular dementia, INFORMATISATION DES DONNEES DENTAIRES POUR L'IDENTIFICATION DES VICTIMES EN ALGERIE, Diabetes Could Be a Warning Sign of Pancreatic Cancer: A Case Report and Literature Review, Gestion des deces par infection au COVID-19: Les recommandations de l'Academie Algerienne de Developpement des Sciences Medico–Legales (AADSM) and many others .

6.2 Abstract

EFFECTIVENESS OF HISTOPATHOLOGIC EXAMINATION OF THE HEART DURING FORENSIC AUTOPSIES AT THE DEPARTMENT OF LEGAL MEDICINE, MUSTAPHA UNIVERSITY HOSPITAL CENTER

To evaluate the value of pathological examinations of the heart in forensic autopsies. Anatomopathological expertises of the heart taken during forensic autopsies, in a prospective study that will cover three (03) years made at the service of forensic medicine CHU Mustapha from 1 January 2014 to 31 December 2016.

During this period, we collected the epidemiological and autopsy data of 545 victims who died of undetermined and natural causes and who underwent a medico-judicial autopsy, performed at the thanatological unit of the forensic medicine department of CHU Mustapha, out of a total of 1062 autopsies, i.e. a percentage of 51.3%. Our study shows that the anatomopathological expertise of the heart carried out during a medico-legal autopsy makes it possible to carry major diagnoses, related to the death and suspected during the autopsy in 95.5% of the cases and in only 4.4% of the cases of the diagnoses carried out at the time of the microscopic analysis

Pathological analysis is useful in cases of natural or undetermined death but should be limited to certain circumstances. It should be restricted to autopsies without a macroscopic cause of death, with a negative toxicological study.

Our study also highlights the need for better communication between pathologists and medical examiners. Forensic doctors should provide pathologists more systematically with information on the circumstances of death, the lesions discovered during autopsy and the results of toxicological studies in order to optimise the performance and efficiency of the anatomopathological expertise. Our study also shows the interest of a better training of forensic doctors in the macroscopic examination of organs, mainly the heart, and what remains valid for the other organs.



7 – Dr Mohammed Djilali Merzoug

Master Assistant in legal Medicine, Ethics and Medical Law
Facuaty of Medicine Dr. Taleb Mourad Sidi Bel Abbes, ALGERIA

7.1 Biography

Title of Doctor of Medicine (General Medicine) of the Faculty of Medicine Dr BENZERDJED, University of ABOUBEKEUR BELKAYED TLEMCEN in JUNE 2004.

Medico-surgical emergency doctor at the hospital Mohammed BOUDIAF, Ain Sefra W / NAAMA in (2004–2005).
Doctor of emergency medical and surgical at the Hospital de GHAZAOUET W / TLEMCEN of (2005–2008).

Resident Doctor in forensic medicine, ethics and medical law at the level of the medical faculty Dr Taleb Mourad, DJILLALI LIABES SIDI BEL ABBES University during the period 2009–2012.

Diploma of medical study specialized in forensic medicine, ethics and medical law in April 2013 of the faculty of medicine Dr Taleb Mourad, Sidi Bel ABBES.

Doctor Specialist in forensic medicine, ethics and medical law at EL BAYADH W / EL BAYADH Hospital (2013–2014).

On decision of JURY of passing examination for obtaining the rank of assistant professor in forensic medicine, ethics and medical law in May 2015, whose assignment in the faculty of medicine Dr. TALEB MOURAD, SIDI BEL ABBES.

TEACHING AND COACHING:

Responsible for the module of Ethics, Deontology of students of the 4th year dental surgery during the academic year 2015–2016.

Responsible for the module of Ethics, Ethics and Forensic Medicine for students of the 6th year LEGAL MEDICINE during the academic year 2016/2017.

7.2 Abstract

The role of pathology in correcting the diagnosis of post-convulsive cerebral sarcoidosis (about a case)

The difficulty of determining the exact cause of death in a young adult.

Objectives: are multiple on this case of autopsy:

- Always make forensic doctors think about the interest of paraclinical examinations.
- To clearly explain these results to the magistrates.
- Thoroughly explore the deceased's medical file.

Introduction:

Their cosmopolitan clinical aspects know diseases of the system, The latter requires well diagnostic and therapeutic care in the short and long term and requires a multidisciplinary team. However, sometimes, the diagnosis remains very difficult, leading to death in a short time.

Case Study:

He is a young 21-year-old NIGERIAN student hospitalized in the internal medicine department of the CHU of SIDI BEL ABBES for unexplained convulsions, Of sudden onset.

After hospitalization for a few days, for investigation, where the paraclinical exploration (radiological and biological) returned without particularity.

Death has occurred; an UNDETERMINED death certificate issued.

Results:

A medico-judicial autopsy is carried out under the order of the public prosecutor, highlighted:

- Cerebral edema.
- Massive acute pulmonary edema.
- No trace of violence or traumatic injury.

A toxicological and anatomopathological exploration was requested, the results of the report confirming cerebral sarcoidosis.

Discussion-conclusions:

The context of sudden death in the medical-surgical emergency department is always fearful for nursing staff and justice, even more the ignorance of the cause of death.

The diseases of the system have a great part in the ignorance of the serious complications, where in our studied case; the anatomopathology oriented the specific aspect of sarcoidosis.



Ass. Prof. Dr. Rania Abdel Mageid Kaka

MSc & MD in forensic medicine and clinical toxicology.

Associate Professor of Forensic Medicine and Clinical Toxicology, Faculty of Medicine, Alexandria University, Egypt.

8.1 Biography

Associate Professor Dr. Rania Abdel Mageid Kaka is an associate Professor of Forensic Medicine and Clinical Toxicology, Faculty of Medicine, Alexandria University, Egypt.

- MB.BCh in Medicine and General Surgery.
- MSc & MD in forensic medicine and clinical toxicology.
- Diploma in Hospital management.
- Diploma in health care quality management.
- Training of trainee (TOT) course, Arab Academy of Sience and Technology (AAST)
- Course in Emotional Intelligence (AAST).

She worked as a staff member in the faculty of medicine, Alexandria University, teaching theoretical and practical courses of Forensic medicine, clinical toxicology and medical ethics for undergraduate and postgraduate medical students. She is a tutor in faculty of medicine, Arab Academy of science and technology (AAST). She is a consultant of forensic medicine and worked also as consultant of clinical toxicology at Alexandria poison center.

Active member in the "Mentorship program" organized by Quality Assurance Unit (QAU), Alexandria University. One of the administrative team of the international Undergraduate Medical Program (IUMP) at Alexandria University. Dr. Rania worked in collaboration with other countries in some research projects:

- o She collaborated with a Malaysian university in Kuala Lumpur to conduct the thesis of the Doctor degree "A Comparative Study on Some Cephalometric and Odontometric Measurements among Adult Egyptian versus Adult Far East Populations Using Multidetector Computed Tomography".
- o She also collaborated with Libyan Forensic medicine authority in two researches "A Criminal Violence in Libya: A Descriptive, Autopsy-Based Study of Deaths by Firearms in Tripoli." and "The Application of the International Classification of Diseases among Autopsy Cases of Sudden Death in Tripoli, Libya."
- o There was also common research with Sudan entitled: "Comparison of the pattern and outcome of acute poisoning between Alexandria poison center (Egypt) and three main hospitals in (Sudan)."

Dr. Rania has published many research articles in the field of forensic medicine and clinical toxicology in high impact national and international journals. She is an editor and reviewer in some international specialized medical journals. She has participated as a speaker in many international conferences. She has experience in the field of medical ethics, the field of medical education as well as the field of medical education.

8.2 Abstract

Medicolegal and Clinical Aspects of Iatrogenic Vascular Injuries Induced in Different Surgical Disciplines

Iatrogenic vascular injuries (IVI) are critical to be identified as they are induced by medical personnel whose intent not to cause damage. There is an obvious deficiency in the educational sessions for surgeons concerning the appropriate clinical and medicolegal dealing with such injuries. The objectives of the study were to evaluate and analyze the pattern of iatrogenic vascular injuries induced due to malpractice procedures in different surgical disciplines. Identify important forensic points related to those cases. A retrospective study of the data of iatrogenic vascular injuries over a 5-year period (starting from 1st January 2018 till 31st of December 2022) was done. The data were collected from registries of three surgical centers at Alexandria, Egypt. The study emphasized on the cause, presentation and outcome of that trauma. Only cases required vascular surgeons' consultation were included. The study revealed that a total number of 197 cases were traumatized during surgical procedures by their surgeons. 28.42% of those cases (n= 56) were caused by endovascular maneuvers during cardiovascular surgeries. More than one third of injuries (n= 67) were induced during catheterization for diagnostic and therapeutic interventions in kidney and urinary tract, mostly causing puncture of the brachial artery (n= 21) and common femoral artery pseudoaneurysm (n= 17). Orthopedic surgeons were involved in 16 cases. Acute injuries presented by laceration and bleeding, while delayed presentations were mainly pseudoaneurysms (41%), arteriovenous fistulas (28%). Most of orthopedic cases were presented by large hematoma and compartment syndrome that necessitated fasciotomy. There was no mortality, but significant morbidity occurred; mainly in the form of large vein thrombosis, aortic laceration and massive hematomas that caused delayed ambulation. Twelve patients launched legal actions. The study concluded IVI mostly caused by endovascular diagnostic and therapeutic procedures and it shed light on the significance of accurate medicolegal dealing with such injuries.



Prof Massinissa Benyagoub

Associate professor in forensic sciences, medical law and ethics
faculty of medicine university of Laghouat, Algeria

9.1 Biography

Promoted to Associate Professor A in the specialty of Forensic Pathology, Medical law and ethical Thesis in medical sciences specializing in legal medicine, medical law and ethics (Risk factors and consequences of domestic violence on the health violence on the health of women consulting at the service of forensic medicine of legal medicine of Laghouat)

Vice Dean of Pedagogy and Student Relations of Medicine of Laghouat, Algeria

Member of the committee of the emergency medicine and surgery of the E.P.H of Laghouat

Member of the committee of guard of the E.P.H of Laghouat

Vice president of the medical council of the hospital of Laghouat

Member of the national board of the learned society Algerian Academy of Development of medical legal sciences

Elected representative of the assistant professors at the board of directors of the university of Laghouat

Acting head of the service of legal medicine E.P.H Laghouat

Editor in chief of the journal – AVICENNA MEDICAL RESEARCH – the Journal of the Faculty of Medicine of Laghouat

Member of the national committee of pedagogy of graduation medicine (CPNG)

Member of the scientific committee of the Faculty of Medicine of Laghouat

Member of the scientific committee of the research center in humanities and Social Sciences of Malaysia

Member of the national committee of specialty of legal medicine, medical law and Ethics

Member of the scientific committee of the Amar Thelidji University of Laghouat and the faculty of medicine of Laghouat.

Member of the ethics committee of the university Amr thelidji of Laghouat

Participation in many research papers presented at several national and international congress

9.2 Abstract

Death of an accused in a court after the announcement of the verdict interest of the autopsy

When an accused is found guilty by a judge and sent to prison, it is important to ensure that their health is adequately taken care of. However, in some cases, tragic events may occur, such as the death of the accused shortly after the verdict. In such a case, a forensic autopsy may be essential to determine the exact cause of the accused's death.

In a case study presentation, we examined the history of a woman accused of drug-related crimes who died shortly after being sentenced to prison. Initial information

suggested that the death was due to an overdose, but the forensic autopsy revealed that the woman had actually ingested paraphenylenediamine (PPD), a toxic substance used in hair dyes.

PPD is a dangerous chemical that can cause severe allergic reactions in some people, resulting in kidney, liver, and nerve damage, as well as death. In this case, the forensic autopsy identified PPD as the cause of the woman's death.

This case highlights the importance of conducting a thorough forensic autopsy to determine the true cause of a prisoner's death, particularly in cases where the cause of death is uncertain or appears suspicious. In this case, the forensic autopsy determined the exact cause of the woman's death, which prevented erroneous conclusions and ensured that the woman's family received clear answers about the circumstances of her death. Ultimately, the forensic autopsy is essential to ensure that the rights of all individuals are respected and to identify the causes of deaths. In this case, the autopsy revealed that the woman had ingested a toxic substance, leading to an awareness of the need to protect prisoners from exposure to potentially dangerous substances.



Dr. Moutasim Ibrahim Suleiman

Ph.D. (Pharmaceutical Chem.)

Drug & Poison Expert, Head of Toxicology Unit, RAK police Forensic Laboratory , UAE

I0.I Biography

B.Sc. Honors, (Chemistry) , 1981 (U. of Khartoum– Sudan).

Ph.D. (Pharmaceutical Chem.), 2000 (U. of K/ U. of Bradford,UK).

Doctor Moutasim is recently working with Rak Police Forensic Lab, as a senior Drug & Poison Expert, since July 2018.

He got an accumulated experience over 37 years, working as:

Teaching assistant at faculty of Pharmacy (U. of Khartoum–Sudan).

QC and QA Manager at Amipharma Laboratories.

One of the leading Pharmaceutical manufacturers in Sudan).

QA and Deputy Plant Manager at Pharmacare FZE, Jebel Ali, Dubai, UAE (Pharmaceutical manufacturer).

Senior Drug & Poison Expert at Sharjah Police Forensic Laboratory, (Ministry of Interior)

Drug & Poison Expert at Ras Al khaima Police

Forensic Laboratory, up to now (Ministry of Interior).

Areas of interest:

- Drug Quality Control and Quality Assurance.
- Drug Stability Studies.
- Forensic Chemical Analysis.

10.2 Abstract

It is mandatory for all the biological samples (urine) coming to the toxicology unit to undergo presumptive screening tests for the presence or absence of abused drugs and/ or their metabolites.

Samples positive for the presumptive (Immunoassay) test should undergo confirmatory tests, using sophisticated instruments as GCMs to determine the abused drugs.

False positive/negative immunoassay results should be given utmost care when conducting the confirmatory tests and samples should be tested and retested by many authorized analysts, using different instruments and established methods.

There should be a local forum, held regularly between the toxicology specialists to discuss these positive / negative results and samples may be exchanged between their laboratories to confirm the findings. The idea may regionally be extended to the GCC laboratories and the positive findings may be endorsed in the schedules of narcotics and psychotropics, after the approval of the supreme technical committees.



Khalid Suliman Osman Adam

M-PHARM (A Master of Pharmacy) Drug Manufacturing & QC
Forensic Chemist RAK Police, UAE

II.I Biography

MBA Master of Business Management (pharmacy Management & Hospital Administration) IIPM of Planning and Management) USA

PG Diploma in Forensic Pharmacy ICRI

PG Diploma in Drugs Quality Control WHO, WIPO &Commission on Narcotic Drugs (CND) UN (United Nation Institute)

Worked at LIFE PHARMACY (NATURES LIFE PHARMACY– DUBAI JUMAIRAH) and SHARJAH INTERNATIONAL AIRPORT AUTHORITY AIRPORT MEDICAL CENTER (PHARMACIST IN CHARGE), AIRPORT DRUG INSPECTOR (UNDER MOH UAE) & DRUG ANALYSIS (DOA).

II.2 Abstract

How Artificial Intelligence is Revolutionizing Drug Discovery In Toxicology

Artificial intelligence has the potential to change the discovery of Different Narcotic Drugs and impact uses and safety using (COMPTOX AI) and (HI) , which is important for the Toxicology practies, which explores the adverse effects resulting from exposure to the various harmful chemicals on humans Such as Narcotics ,Antidepressants, Antipsychatics, etc. Machine learning architectures are used to analyze and learn from publicly accessible biomedical and clinical trial datasets, real-world information from sensors, and health records are briefly covered. Recognition of complex patterns in toxicological data using advanced AI methods and its assistance in detection, characterization, and monitoring of ND also can be elaborated. The future of AI and its impact on clinical toxicology is also discussed and summarized in detail , with avoiding the cognitive dissonance of AI.



Mrs Fatma mohammed Aldhahouri

Bachelor in chemistry
Forensic Chemist Ras Al Khaimah Police, UAE

12.1 Biography

My passion for forensic science and chemistry led me to pursue a career as a forensic lab technician. After completing my B.Sc in General Chemistry from the Faculty of Sciences at the United Arab Emirates University in Al Ain in 2016, I joined the Forensic Chemistry section of the Ras Al Khaimah Police in 2021.

In my role as a forensic Chemist, I am responsible for conducting a wide range of forensic tests and analyses on various types of samples. This includes laboratory equipment and advanced techniques like gas chromatography and mass spectrometry to thoroughly examine and analyze evidence. The meticulous nature of this work is crucial in uncovering crucial information that can contribute to criminal investigations and legal proceedings.

In addition to my work in Ras Al Khaimah Police, I had the opportunity to undergo training in the Dubai Police for the Evaluation and Calibration of devices specific to the Forensic Chemistry Department. This training has further enhanced my skills and knowledge, allowing me to stay updated with the latest advancements in forensic technology and equipment.

I take great pride in being a member of the Saudi Toxicology Society (STS), which allows me to stay connected with fellow professionals and stay updated on the latest developments and research in the field of chemistry. This membership provides me with valuable opportunities to enhance my knowledge, exchange ideas, and contribute to the advancement of forensic science.

I believe that the field of forensic science plays a crucial role in society, and I am dedicated to making a positive impact through my work. With each case I handle, I am reminded of the importance of my role in upholding justice and ensuring the safety of our communities.

I am excited to continue growing and learning in this dynamic field, constantly seeking opportunities to enhance my skills and knowledge. By staying at the forefront of advancements in forensic technology and techniques, I aim to contribute to the improvement of forensic investigations and make a meaningful difference in the lives of those affected by crime.

12.2 Abstract

Intentionally Food Contamination

Food Contamination means adding of a foreign substance to food products that could cause poising. It could be deliberate action to introduce something into a product, often with the intention to do harm to specific person or it could accidentally. This type of crime can be committed in food processing, food storage, food service and food retail operations by a wide variety of people for different reasons. Food contamination can be categorized into four main types: chemical, microbial, physical, and allergenic. In this conference, I will focus on Chemical contamination which happens when a food becomes contaminated by some kind of chemical substance intentionally. Also, I will mention different cases about food contamination that came to chemistry unit in RAK police.



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2023