



ISFRI 2023

2023, from May 25th to 27th

Palladia Hotel,
Toulouse France

Thursday 25th May

08:00 - 08:30 Welcome coffee Opéra Room
08:30 - 09:00 Opening Amphitheatre

Fabrice Dédouit, ISFRI Chair
Sara Laurencin, vice dean of the Health University, Toulouse
Vincent Bounes, vice president of Occitanie Region

09:00 - 11:00 Opening sessions Amphitheatre
Chair: Fabrice Dédouit

09:00 - 9:45: Artificial intelligence, blockchain: a link with medicine and death? **Anthony Gonnet Vandepoorte**
09:45 - 10:30: Radiological innovations and forensic imaging. **Alain Blum/Nicolas Doui**

10:30 - 11:00 Coffee / Exhibit Opéra Room

1 **11:00 - 12:15 Session: Trauma and PMCT** Amphitheatre
Chair: Luiz Ferraz Da Silva / Michael Thali

11:00 - 11:30: A young and agile teaches an elderly: benefits of post mortem imaging in forensic pathology. **Krzysztof Wozniak**

11:30 - 11:40: Life in the Fast Lane: Fatal Motor Vehicle Accidents in Albuquerque, NM.
Jarrell Heather

11:40 - 11:50: The impact of PMCT in demonstrating findings difficult to observe at autopsy.
Roberto Maselli

11:50 - 12:00: Applications of post-mortem CT at the Paris Forensic Institute between 2021 and 2022.
Juliette Oliero

12:00 - 12:15: Case report: Not All That Glitters Is Gold... Standard. **Pires-Davidson John**

2 **11:00 - 12:15 Session: Fossils, anthropology and imaging** Capitouls Room
Chair: Mislav Cavka / Rozenn Colleter

11:00 - 11:35: Virtual explorations of our ancestors. **Jose Braga**

11:40 - 11:50: Photomummy - Rapid photogrammetric surface documentation of mummies using a mobile multi-camera system. **Dominic Gascho**

11:50 - 12:00: Paleoradiology: The utility of Lodox scanning in the assessment of injury in the Later Stone Age of southern Africa. **Calvin G Mole**

12:00 - 12:10: The quiet rest of the warrior: a story of life, death, taphonomy and bone diagenesis.
Edda E Guareschi.

12:15 - 13:15 Lunch / Exhibit Opéra Room

12:15 - 13:15 Posters Opéra Room
Chair: Frédéric Savall / Krzysztof Wozniak

- Coronary artery detection using novel water-soluble contrast agents in post-mortem magnetic resonance imaging. **Mitsuha Fukami**
- Delineation ability of one-scan fused CT with deep learning imaging reconstruction (DLIR) to visualize aortic dissection. **Masahiro Yoshida**
- Estimation of sex by radiological measurement of the femoral head of an Algerian sample. **Ammar Lahouel**



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- Gunshot residue detection on wounds after carbonization. **Céline Guilbeau Frugier**
- Legal retention period for imaging data in France in 2023. **Manuelo Turkiewicz**
- Two medico-legal autopsy cases of multinodular and vacuolating neuronal tumor revealed by postmortem MRI. **Yohsuke Makino**
- Validation and recalibration of the Klaes et al. (2012) sexing method for Algerian population using virtual coxal bones. **Mohamed Yassine Guellati**
- Validation of an automated landmark method based on atlas. **Géromine Fournier**
- What is the yield of adding post-mortem computed tomography and fast-track toxicology to the medico-legal external examination in a Danish setting? A project outline. **Peter Roerdam**
- Which methods do forensic specialists worldwide use for gestational age estimation in fetal death? **Valerie Niehe**
- Comparative study on the development of the knee by post-mortem CT, DR, and MRI. **Apameh Khatam-Lashgari**
- 10:25 - 10:35: An Unusual Victim. **Albane Guigné**

1

13:15 - 14:45: Session: Natural death and forensic imaging

Amphitheatre

Chair: Cristina Jacobsen / Chris O'Donnell

13:15 - 13:45: CT imaging of cardiovascular disease. **Lee Heon**

13:45 - 14:00: A Pastiche of Natural Disease: Radiological/Pathological Correlation. **Jamie Elifritz**

14:00 - 14:20: Characteristics of Acute Coronary Atherothrombosis in Post-mortem CT Angiography.

Katarzyna Michaud

14:20 - 14:35: The Last Supper: Minimally Invasive CT-Assisted Postmortem Collection of Gastric Contents. **Chris O'donnell**

14:35 - 14:45: An unusual case of venous variant leading to fatal vessel perforation during central venous catheter placement. **Jochen Grimm**

2

13:15 - 14:45 Session: Ballistic and forensic imaging

Capitouls Room

Chair: Céline Guilbeau Frugier / Thomas Ruder

13:15 - 13:30: Gunshot wounds on archeological remains: a new application of CT scan?

Mathilde Ducloyer, Elodie Cabot

13:30 - 13:45: Detection of gunshot residue on wounds after burial. **Céline Guilbeau Frugier**

13:45 - 14:00: Establishing bullet reference ranges for in situ measurement of common handgun calibers using Lodox imaging. **Calvin G Mole**

14:00 - 14:10: Identification of entry gunshot wounds using hyperdense ring sign on PMCT.

Emilien Jupin-Delevaux

14:10 - 14:20: Usefulness of virtual reassembly of skull or spine in cases of fragmentation due to high-energy trauma or bone separation through postmortem changes. **Haruki Fukuda**

14:20 - 14:40: The Gamut of Gun Related Deaths in the Wild West. **Jamie Elifritz**

14:45 - 15:15 Coffee / Exhibit

Opéra Room

1

15:15 - 16:50 Session: Pediatric and forensic imaging

Amphitheatre

Chair: Mathilde Ducloyer / Rick Van Rijn (to be confirmed)

15:15 - 15:45: What is the interest of post mortem imaging in pediatrics? **Mathilde Ducloyer**

15:45 - 16:10: The complementary roles of whole-body postmortem computed tomography and conventional skeletal survey. **Rick Van Rijn**

16:10 - 16:25: Postmortem lung CT findings in infants. **Hyodoh Hideki**



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16:25 - 16:40: Spectrum of Common and Unique Pediatric Forensic Imaging. **Brittany Depasquale**

16:40 - 16:55: How micro-CT imaging can aid a medico-legal investigation in a fatal case of suspected child abuse. **Charlotte Primeau**

2

15:15 - 16:50 Session: Odontology and forensic imaging

Capitouls Room

Chair: Guy Ruty / Aleksandra Borowska-Solonyanko

15:15 - 15:40: Odontology, forensic medicine and forensic imaging. **Delphine Maret Comtesse**

15:40 - 15:50: DVI-related tooth assessment. Intra-autopsy inspection versus PMCT-based evaluation.

Aleksandra Borowska-Solonyanko

15:50 - 16:00: Methods of creating a panoramic dental image from CT data. **Marttinen Fox**

16:00 - 16:10: An attempt to estimate age using alveolar bone image. **Fujimoto Hideko**

16:10 - 16:25: History of a smile. Anne d'Alégre (1565-1619, Laval, France). **Antoine Galibourg**

16:25 - 16:40: When dental comparative identification is the only way to recognize unknown human remains with a presumed identity? A case report. **Géromine Fournier**

16:40 - 16:55: Dental age estimation using PMCT: A case of a plaster-embedded infant body found 50 years after death. **Yamaguchi Rutsuko**

17:00 - 17:30: **Closing session of the day**

Chair: Dédouit Fabrice

Paleoradiology. **Frank Ruhli**

Amphitheatre

18:15 - 20:00 Cocktail at the City Hall

Salle des Illustres

After 20:00: Evening free



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Friday 26th May

07:30 - 08:30

Editorial meeting for the Journal "Forensic Imaging"
(for editorial board only)

Croix Baragnon Room

08:00 - 8:30 Welcome coffee

Opéra Room

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08:00 - 10:30 Parallel Session

Capitouls Room

TWGPAM symposium (Technical Working Group Postmortem Angiography Methods)

(limited to 80 persons max)

Chair: Silke Grabherr

Learn how making postmortem angio CTs scan is possible!

08:00 - 08:35: TWGPAM and Post-mortem angiography. **Silke GRABHERR**

08:35 - 09:00: Postmortem imaging of sudden cardiac death, the pathologist's perspective. **Katarzyna Michaud**

09:00 - 09:20: Intravascular pressures during MPMCTA. **Florian FISCHER**

09:20 - 10:20: Interpretation of post-mortem angiography. Practical cases. **Virginie MAGNIN**

10:20 - 10:30: Conclusion and final discussion.

2

08:30 - 10:30 Session: Identification / Anthropology and forensic imaging

Amphitheatre

Chair: Fabio Cavalli / Chiara Villa

08:30 - 08:55: Paleo imaging. **Mislav Cavca**

08:55 - 09:15: Ruddy's Rules. **Guy Ruddy**

09:15 - 09:30: Ötzi the Iceman: forensic 3D reconstructions of a 5300-year-old murder case.

Chiara Villa

09:30 - 09:45: Once Upon a Time The Secrets of Glaciers. **Bettina Schrag**

09:45 - 10:00: Use of postmortem computed tomography in disaster victim identification: Current Japanese methods and challenges. **Maiko Yoshida**

10:00 - 10:15: Mummy Bone Density - A dual-energy CT-based method for measuring bone volume fraction in a mummified body that yields accurate results even in the presence of air in the bones.

Dominic Gascho

10:15 - 10:30: Lodox Linear Slot Scanning Radiology (LSSR) - Unique Radiology Technology in Forensics. **Efthimia Tzetis**

10:30 - 11:00 Coffee / Exhibit

Opéra Room

11:00 - 12:00 Gil Brogdon Honorary Lecture

Amphitheatre

Chair: Dédouit Fabrice

Complementary investigations: weapon marks examination techniques on wounds. **Céline Guilbeau Frugier**

12:00 - 13:00 Lunch / Exhibit

Opéra Room



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12:00 - 13:00 Posters

Opéra Room

Chair: Frédéric Savall / Krzysztof Wozniak

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- An Unusual Victim. **Albane Guigné**

13:00 - 14:00: Working Groups

Kindly choose your working group for one hour of brainstorming with your leader.

The aim would be to write white papers that can be published, to write recommendations papers concerning the use of specific radiological tools depending the medico legal context or case ..., Update past published articles written by WG ..., Develop your network, Develop your collaborations with other scientific societies.

WE NEED YOU !

DVI - Krzysztof Wozniak
Education - Makino Yohsuke

Splitted Amphitheater
Splitted Amphitheater

Guidelines - Jamie Elifritz

Filetiers Room

Image acquisition - Natalie Adolphi

Perche Pinte

Paediatric imaging - Rick Van Rijn

Croix Baragnon

Forensic anthropology - Chiara Villa

Capitouls

14:00 - 15:30: Session: Education and forensic imaging

Amphitheatre

Chair: Hideki Hyodoh / Silke Grabherr (to be confirmed)

14:00 - 14:30: Fetal postmortem imaging using contrast enhanced micro-CT and 3D ultrasound.

Bernadette De Bakker

14:30 - 14:50: Post-mortem imaging techniques as complementary tools for the teaching of anatomy at the Faculty Unit of Anatomy and Morphology in Lausanne. **Sara Sabatasso**

14:50 - 15:10: Updates on the New Mexico Decedent Image Database. **Heather Edgar**

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15:10 - 15:25: Personal Identification from AM and PMCT Derived 3D Lumbar Models. **Jonathan Ford**

2 **14:00 - 15:30 Sessions - Scientific communications** Capitouls Room
12th Annual Meeting of the International Association of Forensic Radiographers
Chair: Lindsay Batty-Smith / Philippe Gerson

14:05 - 14:20: Current forensic imaging practices in Australia and New Zealand: Results from ANZ IAFR survey. **Courtney Steels**

14:20 - 14:35: Stature estimation of the South African male population using the postmortem Lodox imaging. **Marise Heyns**

14:35 - 14:50: From Yugoslavia to Ukraine? - The role of radiography in the forensic investigation and victim identification of war crimes. **Mark Viner**

14:50 - 15:05: Proposed radiation doses from a phantom study for an NAI skeletal survey X-ray series. **Edel Doyle**

15:05 - 15:20: Confirmation of Cardiomegaly from the Cardiothoracic Ratio in Post Mortem Lodox® Imaging. **Marise Heyns**

15:30 - 16:00 Coffee / Exhibit Opéra Room

1 **16:00 - 17:15 Session: Identification /anthropology** Amphitheatre
Chair: Krzysztof Wozniak / Bernadette De Baker

16:00 - 16:20: Standards of practice in forensic age estimation with CT of the medial clavicular epiphysis – a systematic review. **Thomas Ruder**

16:20 - 16:35: Unaccompanied Minors Automatic Forensic Age Estimation (UMAFAE): applying artificial intelligence-based methods to estimate legal age in undocumented minors. **Stefano De Luca**

16:35 - 16:45: Virtopsy approaches forensic use of 3D radiological data to confirm suspected personal identity. **Wolf Schweitzer**

16:45 - 17:00: Postmortem CT: the experience of the Research Unit of Paleoradiology and Allied Sciences of Trieste. **Martina Montanaro**

17:00 - 17:15: The practice of forensic anthropology and odontology. **Fathéma zehra Bounif**

2 **16:00 - 17:15 Parallel Session II** Capitouls Room
12th Annual Meeting of the International Association of Forensic Radiographers
Chair: Edel Doyle / Eric Dumouset

16:05 - 16:25: Micro-CT imaging for forensic case work: A collaboration between West Midlands Police and WMG, Warwick University, UK. **Charlotte Primeau**

16:25 - 16:35: Development of water-soluble contrast agents for postmortem computed tomography angiography. **Nishida Hinata**

16:35 - 16:45: Novel water-soluble contrast agent for whole body postmortem magnetic resonance imaging. **Yamamoto Tomoaki**

16:45 - 17:05: Importance of additional sequences and postprocessing techniques in postmortem MRI. **Kojima Masatoshi**

17:30 - 18:30 General Assembly of the ISFRI Amphitheatre

19:30 - Gala diner Salle des colonnes, Hôtel Dieu



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Saturday 27th May

08:00 - 08:30 Welcome coffee

Opéra Room

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08:30 - 11:00 Session: Forensic imaging and technology I

Amphitheatre

Chair: **Wolf Schweitzer / Yanko Kolev**

08:30 - 09:00: The use of Image Guided Minimally Invasive Autopsy in Brazil. **Luiz Ferraz Da Silva**

09:00 - 09:15: Postmortem Infrared Coronarography of the Human Heart. Results and Improved Technical Protocols. **Yanko Kolev**

09:15 - 09:30: Evaluation of subject-specific finite element analysis of skull fracture as a forensic tool. **Mikkel Henningsen**

09:30 - 09:45: Micro Computed Tomography for Post Mortem Imaging. **Daniel Docter**

09:45 - 10:00: Virtopsy of isolated bones: better fracture morphology by reducing bone surface CT artifacts through using a water bed. **Wolf Schweitzer**

10:00 - 10:15: DECT and QCT-based Measurement of Bone-Volume Fraction - An Ex Vivo Pairwise Comparison. **Patrik Wili**

10:15 - 10:30: In situ determination of pH in brain tissue using postmortem 1H-MRS. **Dominic Gascho**

10:30 - 10:45: Automated classification of ballistic-related Post-Mortem CT reports using Natural Language Processing. **Joseph Benzakoun**

10:45 - 11:00: Quantitative morphological analysis by Fourier elliptical descriptors in 3D. **Pierre-Emmanuel Zorn**

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08:30 - 11:00 Forensic imaging and miscellaneous

Capitouls Room

Chair: **Mathilde Ducloyer / Nathalie Adolphi**

08:30 - 08:55: Postmortem CT and forensic identification: the role of facial approximation and craniofacial superimposition techniques. **Fabio Cavalli**

08:55 - 09:10: Knowing the case inside out: The value of having CT available in the courtroom setting. **Janette Verster**

09:10 - 09:25: Correlation between PMCTA and autopsy findings in violent deaths. **Fehmi Snène**

09:25 - 09:40: When Animals Attack: Forensic Imaging Unit. **Jamie Elifritz**

09:40 - 09:55: Detection of iodine using spectral imaging on PMCT. **Chris O'donnell**

09:55 - 10:05: Image Quality Assessment of Low-Dose Whole-Body Phantom CT Skeletal Surveys for NAI. **Edel Doyle**

10:05 - 10:15: Utility of PMCT in a case of systemic silicone embolism. **Denise Squecco**

10:15 - 10:25: Artifacts in CT-imaging of the brain: A cooling effect? **Frédérique Thicot**

10:25 - 10:40: The use of Postmortem CT-scan and quick toxicology analysis as a supplementary screening method to the medicolegal inquest. **Kisbye Lea Wold**

10:40 - 11:00: The Perils of Fentanyl: An Update on Contraband Drug Smuggling and Abuse in 2023. **Barry Daly**

11:00 - 11:30 Coffee / Exhibit

Opéra Room



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11.30 - 13:00 Forensic imaging and technology II

Amphitheatre

Chair: **Summer Decker / Ebert Lars**

11:30 - 11:45: An algorithm to display multiple CT windows simultaneously using machine learning.

Ebert Lars

11:45 - 12:00: Mobile 3D crime and accident scene documentation with Apple's LiDAR technology.

Sören Kottner

12:00 - 12:15: ImagingRing forensics. A cost-effective high-end mobile imaging robot for postmortem computed tomography and simultaneous 3D optical surface documentation. **Dominic Gascho**

12:15 - 12:25: Image analytics for biological profiling of human skeletal remains: the application of transfer learning-based image analysis using a user-friendly visual programming approach.

Ivan Jerković

12:25 - 12:40: Closed or open? When X-rays help solve a forensic problem in a domestic fire case.

Mathilde Ducloyer, Ronan Vinay

12:40 - 12:50: Can micro-computed tomography (μ -CT) be informative for microscopic study on lung fragments? About a preliminary study on 13 hanging cases. **Eulalie Pefferkorn**

12:50 - 13:00: Spatial analysis of intimate partner violence against women in the city of Toulouse.

Ryan Toutin

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11.30 - 13:00 Session: Clinical forensic medicine /Asphyxia

Capitouls Room

Chair: **Jamie Elifritz / Thomas Ruder** (*to be confirmed*)

11:30 - 11:45: Imaging after non-fatal strangulation – retrospective analysis over 13 years. **Thomas Ruder**

11:45 - 11:55: Value of medical imaging re-reading in clinical forensics: About two intriguing cases.

Agathe Bascou

11:55 - 12:05: Diffuse idiopathic skeletal hyperostosis: a clinical case report. **Anthony Ramirez**

12:05 - 12:20: Accuracy of post-mortem computed tomography (PMCT) in diagnosing fractures of the hyoid-larynx complex (HLC). **Sara Larsen**

12:20 - 12:35: Cervical spine disc injuries evaluation using postmortem kinetic CT. **Shogo Shimbashi**

12:35 - 12:50: The value of Micro-CT imaging in the forensic evaluation of neck trauma. **Melanie**

Timmerman

12:50 - 13:00: Suspension-Associated Dislocation of the Jaw in Hanging. **Joanna Glengarry**

13:00 - 13:30 ISFRI Board

Amphitheatre

Prize for Patricia Flach

Closing Ceremony
