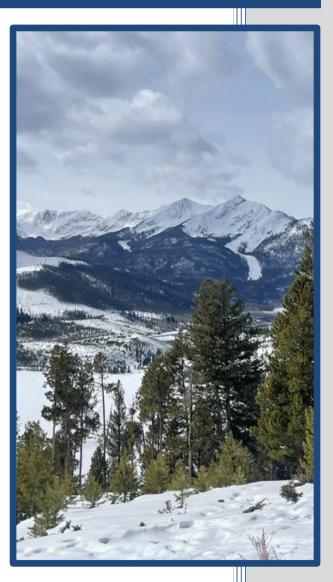
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NEWSLETTER

INTERNATIONAL ORGANIZATION FOR FORENSIC ODONTO-STOMATOLOGY



Volume 46, Issue 2, December 2024

Newsletter of the INTERNATIONAL ORGANIZATION for FORENSIC ODONTO-STOMATOLOGY (IOFOS) *Volume 46, Issue 2, December 2024 | www.iofos.eu*

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IMPRESSUM

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Cover Photo: Colorado, USA; Credit: Cristiana Palmela Pereira

EDITORIAL

Newsletter of the INTERNATIONAL ORGANIZATION for FORENSIC ODONTO-STOMATOLOGY (IOFOS) *Volume 46, Issue 2, December 2024 | www.iofos.eu*

Ashith B. Acharya

Editor, IOFOS Newsletter

Professor and Head, Department of Forensic Odontology, SDM College of Dental Sciences & Hospital, Shri Dharmasthala Manjunatheshwara University, Dharwad, INDIA <u>news1-editor@iofos.eu;</u> <u>ashith@ashithacharya.com</u> t is one year since I edited my first issue of the IOFOS Newsletter in December 2023, and it seems only yesterday that I did so!

And it has been a momentous year for the IOFOS, as you will see in the President's message. Indeed, the

IOFOS President Prof. Cristiana Palmela Pereira has been criss-crossing the globe and has a large footprint, responsible for a lot of the developments that have occurred in 2024. And she has taken a lot of interest in showcasing these

milestones in this issue of the Newsletter. These relate to academic programmes and meetings, standards and quality maintenance and enhancement, and current trends in research and development in the field of forensic odontology (the Newsletter includes conferences that concluded just a few days before going to press!). The e-Symposium organised by the **IOFOS** earlier in December 2024 perhaps best reflects this. It showcased diverse research integrating artificial intelligence (AI) and machine learning in forensic odontology from presenters young and experienced and representing multiple continents. Speaking of AI, I must disclose that I have used online generative AI tools (Microsoft Copilot) to paraphrase one sentence each in two contributions



submitted to this issue of Newsletter. This is a first for me. While I take some pride in my ability to write in the English language (of which I am not a native speaker)—be they research papers, textbook contributions, or volumes of self-study reports for my institution's accreditation, to name a

> few, I was impressed by the generative AI tool's ability to contextualise the sentences in question. The two statements/ sentences are indicated by the 'sparkles' icon (*) where they appear.

As customary, I invite you to reciprocate and share *your* forensic odontology experience with the IOFOS community by preparing meeting reports and other texts. Your contributions for the June 2025 issue of the IOFOS newsletter should be emailed by 31 May, 2025. They should be in MS Word (max. 800 words and three images). Details available below in Instruction for Authors.

And lastly, I wish to add a note on festive seasons in the weeks gone-by and upcoming. October was when many in India had their major festivals. As it concluded, the focus turned to the forthcoming principal festive season for many others around the world! So, here's wishing all celebrating a Happy Christmas, and a wonderful 2025! **Newsletter of the INTERNATIONAL ORGANIZATION for FORENSIC ODONTO-STOMATOLOGY (IOFOS)** *Volume 46, Issue 2, December 2024 | www.iofos.eu*

Instruction for Authors

IOFOS Newsletter is published biannually in June and December. Contributions should be sent by e-mail to <u>newsl-editor@iofos.eu</u> before the first day of the month of publication. All contributions should be in English as Microsoft Word documents (max. 800 words, and up to three images). Do not include images within the text. If any, images should be at the end of the text. Images should be numbered and have legends. Indicate in the text where the respective image should be placed. Author name(s), organisation/institution affiliation, city and country, with e-mail address must be included. All information about forensic dentistry such as meeting reports, news from national societies, forensic activity reports, upcoming forensic meeting announcements, etc. from IOFOS members/member societies, as well as from other contributors, are welcome. If you wish to be included on the IOFOS mailing list and receive the Newsletter by e-mail, please write to the above e-mail address. Thank you!

PRESIDENT'S PAGE

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Cristiana Palmela Pereira

President, IOFOS

Tenured Professor, University of Lisbon, Faculty of Dental Medicine, Lisbon, PORTUGAL president@iofos.eu cpereira@edu.ulisboa.pt ear IOFOS members, dear readers, dear colleagues and dear friends, welcome to the December 2024 edition of the IOFOS Newsletter. I hope this newsletter finds everyone enjoying this Christmas season.

Honorary Member of ABOL. The scientific meeting was highly. The northeast of Brazil is a beautiful place, and I invite you all to visit. I arrived in the city of Aracaju (the conference venue) in the weekend of Pre-Caju, which is a pre-carnival party of the city. My last note related to this meeting is

As we approach the end of another year, we reflect on the significant developments and activities in the field of Forensic Odontology. This year has been marked by notable advancements, ongoing research, and valuable contributions to the global community of forensic professionals.

In this edition of the Newsletter, we have focused on highlighting the most important events and updates, based on the reports we have received from around the world. Our goal is to keep the content concise and relevant, providing you with the key takeaways from a busy year in forensic odontology.

We hope this summary helps you stay informed about the latest trends and accomplishments within the field, and we look forward to continuing to share knowledge and innovations in the year ahead.

In the last six months, I personally attended several conferences where I was invited by national societies of Forensic Odontology. I was a guest of the 16th Brazilian Congress of Forensic Odontology (CBOL) that took place in November in the northeast of Brazil. I was honoured by the Brazilian National Society of Forensic Odontology (ABOL), in the name of the past President Prof. Edgard Michel Crosato with the award



to congratulate the new President of ABOL, Prof. Jamily Musse.

Another significant scientific event was the 33rd Congress of the Portuguese Dental Association (OMD) in Lisbon, also in November. This year, the

scientific session on Forensic Odontology featured Professor Herman Bernitz, who conducted a highly successful hands-on workshop titled "Understanding Bite Marks: From Evidence Collection to Final Analysis," followed by a three-hour lecture on "The Correct Forensic Approach to the Misunderstood Science of Bite Marks". I would like to acknowledge and congratulate Professor Bernitz for his outstanding work and contribution.

In October, I attended a conference related to the ISO/TC 106 terminology document: Vocabulary for source conclusion for human identification by dental evidence. During the conference I gave several forensic examples of human identification by dental evidence and applied the nomenclature for the conclusion of identification.

Last but not least, regarding scientific invitations, I would like to express my gratitude to INPAFO (Indo-Pacific **Newsletter of the INTERNATIONAL ORGANIZATION for FORENSIC ODONTO-STOMATOLOGY (IOFOS)** *Volume 46, Issue 2, December 2024 | www.iofos.eu*

Academy of Forensic Odontology) for the honor of inviting me as a speaker at their 10th Conference in December. My first words are of sincere thanks. I would like to extend my appreciation to Dr. Naravana Prasad, President of the Congress, and to all members of the Organizing Committee. Equally important is the scientific work accomplished by INPAFO. As President of IOFOS, I am pleased to welcome the newly elected President, Dr. Rakesh Gorea. I would also like to offer my heartfelt thanks to Dr. S. Karpagavalli, Organizing Secretary of the 10th INPAFO Conference, for all the support provided in the preparation of the international speakers.

In this conference my lecture was related to Forensic Odontology in 2024 and Artificial Intelligence and ISO standards titled Artificial Intelligence in Forensic Odontology: Balancing Forensic Odontologist Expertise and Machine Intelligence. My lecture provided an in-depth examination of key definitions and classifications of artificial intelligence (AI) systems, with a particular emphasis on the critical role of datasets in training AI applications within the field of forensic odontology. It explored how the diversity and quality of data influenced the accuracy, reliability, and generalizability of AI algorithms which, in turn, affected their forensic applications and outcomes. The session also addressed recent advancements in Generative AI (GenAI) and its transformative potential for forensic odontology, while discussing the opportunities and challenges posed by multimodal AI technologies. Furthermore, the session delved into the specific application of AI in dental imaging, stressing the importance of data annotations and established criteria to optimize the accuracy and dependability of AI systems. The

discussion also highlighted the challenges of adapting AI models trained on heterogeneous datasets for broader forensic odontology use.

The IOFOS Education Program during the past year has been exceptional. Within the ongoing development of forensic odontology education, I would like to highlight the e-Symposium 'Artificial Intelligence: Where Are We in Forensic Odontology?' Further details of this event are available on the IOFOS website for review. It was a remarkable component of the 2024 educational program, which included significant initiatives such as the IOFOS International Courses on Human Identification and Age Estimation. We now look ahead to the 2025 IOFOS International Courses, with registration details also available on the IOFOS website and this issue of Newsletter. I encourage all members to register for these outstanding courses, which will include the IOFOS proficiency test.

In addition, IOFOS is pleased to announce the inclusion of two new member organizations: the Italian Academy of Legal and Forensic Dentistry (OL-F) and the Japanese Society of Forensic Dental Science (JSFDS). We extend a warm welcome to both associations as new members of IOFOS.

IOFOS was founded on the principles of professionalism, collaboration, and the shared goal of advancing the field of forensic odontology. As President, I remain committed to continuing this legacy, ensuring that we, as members, work together to propel the organization forward. We look forward to the upcoming year, and I would like to express my sincere gratitude for your continued involvement. Please stay tuned for further updates on National Society news.

PRESIDENT'S PAGE

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As we reflect on the year gone by, we are grateful for the continued growth of our community and the dedication of all IOFOS members in advancing the field of forensic odontology.

May this festive season bring you peace, joy, and success in all your endeavors. Wishing you a Merry Christmas and a prosperous and Happy New Year, filled with health, happiness, and new achievements. Happy Holidays.

Looking forward to seeing you again.

Warmest regards.



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Marin Vodanovic

Secretary General, IOFOS

Dean, University of Zagreb School of Dental Medicine, Zagreb, CROATIA vodanovic@sfza.hr



IOFOS Annual Report Meeting, December 2024

he IOFOS Executive Board Meeting, presided over by Prof. Cristiana Palmela Pereira, was held virtually on December 7, 2024, from 1:00 to 1:45 PM CET. Representatives from 19 national forensic odontology societies participated (Fig. 1), while seven were absent.

The meeting commenced with a formal greeting, confirmation of quorum, and unanimous approval of the proposed agenda, presented by Marin Vodanovic.

In her President's Report (Fig. 2), Prof. Cristiana Palmela Pereira highlighted significant achievements, including registering IOFOS as an NGO, opening an official bank account, and recognition as a liaison in TC106 Dentistry by ISO. She also noted the successful organization of international courses on age estimation and human identification, the launch of the IOFOS education section on the website, and the implementation of policies for event patronage. Expansion of IOFOS membership included new societies from Italy and Japan, while ongoing collaborations with international forensic science organizations were emphasized as future priorities.

The Treasury Report, delivered by Prof. Hrvoje Brkić, detailed the transition of funds to the new IOFOS bank account, with a total balance of €34,248.89. Major expenses included legal registration and website development, while income came from membership fees and workshop revenues. The report was approved without objections.

Prof. Vilma Pinchi presented the Editorial Report for the Journal of Forensic Odonto-Stomatology (JFOS), outlining the implementation of new editorial policies and board members to align with Clarivate standards. The journal has seen growth in citations and downloads and has been submitted for impact factor recognition.

Dr. Ashith Acharya delivered the Newsletter Report, updating members on the biannual



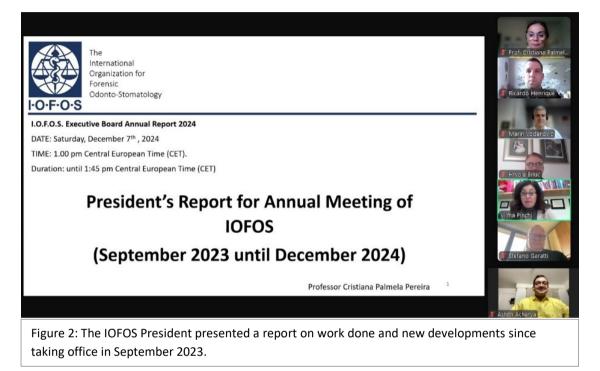
Figure 1: Representative of member societies of IOFOS from around the world attended the annual meeting organized virtually.

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newsletter, which features global contributions and content summaries. The report was accepted unanimously.

held in late 2025 and reminding members to update their contact details. A group photo was taken for documentation purposes, and the meeting adjourned on time with positive feedback for its efficient organization.

Prof. Cristiana Palmela Pereira concluded the meeting with closing remarks, announcing that the next meeting will be



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Gabriel M. Fonseca

Secretary of SOFIA,

Associate Professor, Director of Academic Quality, Universidad de La Frontera, Temuco, CHILE gabriel.fonseca@ufrontera.cl



15th Annual Meeting of SOFIA, and 2nd International Congress of Forensic Odontology, Pucon, Chile,

July-August 2024

he Sociedad de Odontoestomatólogos Forenses Iberoamericanos (SOFIA) [Ibero-American Society of Forensic Odonto-Stomatologists] has been committed for several years to integrating itself globally, adhering to the standards and best practices recommended by the International Organization for Forensic Odonto-Stomatology (IOFOS). With more than 170 members from 21 countries, SOFIA has implemented a robust policy of international linkage for 15 years, considering that only through collaboration among colleagues worldwide can standardization and quality assurance in processes and practices be achieved. From July 30 to August 2, 2024, SOFIA convened its 15th Annual Meeting in Pucón city, located in southern Chile. The meeting was hosted by the University of La Frontera, and was patronaged by IOFOS. Pucón, a town encompassed by lakes, forests, and volcanoes with significant tourist activity, provided an optimal setting for receiving forensic odontologists, professionals, students and enthusiasts from all Latin America.

The first two days were dedicated to the Workshop titled "Use of the PlassData System for Forensic Identification," which was conducted by the renowned Tore Solheim (Fig. 1), Professor Emeritus of the University of Oslo (Norway), in collaboration with Gabriel M. Fonseca, Associate Professor of the University of La Frontera. The workshop was attended by professionals from Argentina, Bolivia, Brazil, Paraguay, the Dominican Republic, and Chile (Fig. 2). Participants accessed and worked with PlassData, and through a disaster simulation and previous case experiences of the lecturers, the workshop assessed not only the knowledge of dental identification according to INTERPOL parameters but also the management models for such events in accordance with current standards and recommendations. Professor Solheim's expertise, charisma, and leadership were undoubtedly instrumental in the success of the activity, inspiring attendees to solve by common needs worldwide.



Figure 1: Prof. Tore Solheim of Norway seen here conducting the workshop.

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During the afternoon of July 31, the SOFIA Annual Assembly was held with exclusive attendance of members. After the reports provided by the Board and the scopes proposed by the different national representations, the election of the new board was held, which was made up of Lourdes Gómez (President), Lourdes Maldonado (Vice-President), Gabriel M. Fonseca (Secretary) and Lidia Bravo (Treasurer), re-elected for a new period, but with all the enthusiasm as always. The closing of the assembly was with the decision of the 16th Annual Meeting to be held in 2025 in the city of Asunción (Paraguay).

The 15th annual meeting was held on August 1 and 2. Chile is a country highly susceptible to natural disasters; consequently, the meeting primarily focused on forensic identification, with the four elements of nature defining the thematic areas for each of the blocks: Air, with lectures by Gabriel Fonseca (from Argentina/Chile: "Standards in Forensic Dentistry: A reflection on Aerocaribbean flight 883, 2010") and José Luis Ramos (from Chile, "Aviation events: international and national administrative and forensic processes"); Fire, with lectures by Denisse Lagos (from Chile, "Forensic identification in the Valparaíso 2024 fire: Dentistry in a complex case") and Ana Amarilla (from Paraguay, "Yquá Bolaños: lessons learned 20 years after the catastrophe"); Earth, with lectures by Lourdes Gómez (from the Dominican Republic, "Dental anthropological study of archaic human remains found in Samaná, Dominican Republic") and Lidia Bravo (from Chile, "With our feet on the ground, let's talk about AI"; and finally Water, with the main lecture by Prof. Tore Solheim (from Norway,

"Identifications after the 2004 tsunami in Thailand, and identification after massive disasters"). This event also provided an opportunity for oral presentations and posters, among which the following received awards: "FBI and identification by lip prints: Review of a canon case", oral presentation by Katherine Campos (Chile), and "Teaching Legal and Forensic Dentistry at the undergraduate level: Review based on a Chilean experience", poster presented by student Paulina Guzmán-Mella (Chile).

The recreational activities included a visit to the Araucanía Volcanological Center (CIVUR-39º), a permanent exhibition at the seat of the Universidad de la Frontera, considering that Pucón is located at the base of the Villarrica volcano, one of the most active volcanoes in South America. Additionally, participants visited the "Termas Geométricas" [Geometric Hot Springs], comprising sixty thermal water sources and 18 pools situated within native forests in the Villarrica National Park. The social interactions were as significant and engaging as the academic proceedings, since SOFIA brings together not only colleagues but also friends with strong ties since its foundation.

The 15th Annual Meeting of SOFIA presented a renewed opportunity to reaffirm the commitment of Latin American forensic odontologists to pursue quality standards, international background and, most importantly, to adhere the best practices in assisting justice. The next meeting will be held in September 2025 in the city of Asunción, where the integration of scientific discourse and professional camaraderie will continue.

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Figure 2: Dentists from across Latin America attended the program.

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Gwénola Drogou Saout

President, Association Francaise d'Identification Odontologique (AFIO) gwenola.drogou@gmail.com

34th Conference of the French Association of Forensic Odontology – AFIO, October 2024

he AFIO meeting was organised from 2nd to 4th of October 2024 at the Dental University in Nantes (Fig. 1). Within this university, forensic odontology is taught for post-graduate students in expert practices.

On the first pre-congress day, two workshops were organised. One was on photographic techniques carried out during bite-mark pattern analysis (Fig. 2) while the other focused on expert techniques for assessing personal injury damages. They were both very successful. The second day of the conference was dedicated to odontological identification with the following items: forensic anthropology, historical cases of identification, research in forensic odontology, case reports, descriptive studies, identification of unknown/missing, DVI exercises, and last identification missions of disaster victims.

We had the pleasure of welcoming several speakers and delegates from different countries, as well as Colonel Laurent Chartier, Deputy Director of the Forensic Sciences Institute of the French Gendarmerie, and Professor



Figure 1: University Of Odontology Nantes.

The first day of the plenary conference was devoted to several subjects:

- Intra-family violence, the role of the dental surgeon in identifying oral and dental signs and providing his expertise to victims. This theme of dealing with domestic violence was treated in a multidisciplinary manner with the intervention of a lawyer, a midwife coordinator of violence against women, a lawyer, dental surgeons, an attorney, a psychologist, and police representative
- Responsibility and professional ethics when managing emergencies in the office
- Loss of implant in expertise: fault or hazard

Renaud Clement, Director of the Nantes Forensic Institute.

Gwénola Drogou Saout, President of AFIO had the great honour of receiving the Gösta

Gustafson Prize from Professor Rüdiger Lessig, President of AKFOS (Fig. 3).

Apart from the scientific aspects of the congress, the social events were very festive. On the evening of 2nd October dinner was arranged in a restaurant on Ile Feydeau, the historic centre of Nantes from the 18th century. The following day at lunch, Professor Gilles Amador—university professor responsible for teaching the 3rd cycle of forensic odontology—organised a tasting of Muscadet (a white wine from the Nantes region), which was widely appreciated. Finally, the gala dinner organised on a barge on the Loire was memorable. Quiz, photobooth and music that took the participants to the dance floor!

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Figure 2: The bite mark workshop.



Figure 3: Gösta Gustafson Award presented to Gwénola Drogou by Rudiger Lessig (left), and the AFIO Council Board.

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Cristiana Palmela Pereira

President, IOFOS

Tenured Professor, University of Lisbon, Faculty of Dental Medicine, Lisbon, PORTUGAL president@iofos.eu cpereira@edu.ulisboa.pt

ISO/Technical Committee 106 – Dentistry Meeting: Forensic Odontology and IOFOS as Liaison, New Orleans, USA, October 2024

he 60th ISO/Technical Committee (TC) 106 – Dentistry Meeting was organized in New Orleans, USA, from October 12 to 16, 2024 (Fig. 1). The 60th Plenary meeting took place on October 16th 2024, and Chairperson Gottfried Schmalz welcomed delegates. The meeting was attended by 159 delegates from 15 P-member countries (Australia, Canada, China, Finland, France, Germany, Italy, Japan, Korea [Republic of], Portugal, Saudi Arabia, Switzerland, Thailand, United Kingdom, and United States) and 1 Omember country (Hong Kong). IOFOS attended as a Liaison for the first time.

Katie Lee was the secretariat for the TC106 last year working with Gottfried Schmalz. This was the last plenary meeting under him. Benoit Soucy (Canada) is the nominated



Figure 1: ISO/TC106 meeting was in the beautiful city of New Orleans.

Chair of ISO/TC106 – Dentistry.

At the plenary session (Fig. 2) all subcommittees presented their resolutions from the days before. The sub-committee (SC) that the IOFOS is Liaison for is the SC 3 Terminology. Their meeting was on October 14th 2024, and IOFOS was present at SC 3 Terminology as Liaison (Fig. 3). ISO/TC 106/SC 3 agreed to establish a Category A Liaison with IOFOS. The Liaison representative is Prof. Cristiana Palmela Pereira.



Figure 2: Plenary session on 16 October where project Forensic Odontology as a new *ad hoc* group was presented.

In the plenary, the proposal for new SC on Forensic Odontology proposed in April 2024 by Prof. Cristiana Palmela Pereira was evaluated.

Gottfried Schmalz introduced Prof. Cristiana Palmela Pereira, Portuguese Head of Delegation and President of IOFOS, to discuss her application to the ISO/TC to create a new SC within ISO/TC 106 concerning Forensic Odontology. After Prof. Pereira's short presentation, Gottfried explained that there were a few questions that remained unanswered and proposed

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that an *ad hoc* group be created to answer the following questions:

- 1. Human resources, including financial aspects and written confirmation from supporting NSBs
- The alignment of the scope of the new group within the scope of TC 106
- The relation with other TCs or groups in this area, preferably by written confirmation from these groups, and
- 4. The relation with other external groups such as the IOFOS, Interpol, Europol, NATO preferably by written confirmation form these groups.



Figure 3: The General Secretary of ISO/TC 106 Katie Lee, IOFOS President Cristiana Pereira, Chair of the SC 3 Terminology Benoit Soucy (elected as Chair of the ISO/TC106), and Secretary of the SC 3 Igor Minic.

This resolution was passed unanimously. The resolution 2024-16 reads as follows: ISO/TC 106 resolves that an *ad hoc* group is installed with the aim to further elaborate on the proposal from Portugal concerning Forensic Odontology. The group will be chaired by Benoit Soucy and representatives from all SCs are encouraged to engage in the work of the *ad hoc* working group (Fig. 4). Special attention shall be directed to:

- Human resources, including financial aspects and written confirmation from supporting NSBs
- The alignment of the scope of the new group within the scope of TC 106
- 3. The relation with other TCs or groups in this area, preferably by written confirmation from these groups
- 4. The relation with other external groups such as the IOFOS, Interpol, Europol, NATO preferably by written confirmation form these groups, and
- 5. The *ad hoc* working group shall report on the progress of work at the 2025 ISO/TC 106 Plenary and propose a strategy for further development.

Related to this resolution the Pmember countries have an open ballot until December 30th 2024 (Reference: Call for Experts – ISO/TC 106/AHG 4 – Forensic Odontology). I invite all national heads of delegates to vote on this document and nominate the experts comprising the group. This is very important for advancement of Forensic Odontology.

Additionally note that it is important that all heads of delegation of each country can vote in the document ISO/CD 21611, which is open until January 31st 2025. This is the document proposed by Portugal related to Dentistry — Vocabulary for Source Conclusion for Human Identification by Dental Evidence. As President of IOFOS and Head of Delegation from Portugal I wish to thank Benoit Soucy for supporting forensic odontology, first as Chair of SC3 and now as Chair of ISO/TC 106 – Dentistry.

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Figure 4: (Clockwise from top left) Working Group 1; Working Group 3; First day of the meeting with Sharon Stanford, Director of Standards at American Dental Association (ADA); social dinner in a boat on the Mississippi river.

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Suzana Papile Maciel

President, 16th Brazilian Meeting of Forensic Odontology sumaciel@uol.com.br

> Ricardo Henrique Alves da Silva

Vice-President, IOFOS ricardohenrique@usp.br 16th Brazilian Meeting of Forensic Odontology, Aracaju, Brazil, November 2024

he Brazilian Meeting of Forensic Odontology is the largest and most important conference related to Forensic Dentistry in Brazil and this event has been held on a biennial basis since 1992. The last edition of the conference was held in Aracaju, November 12th – 15th, 2024.

The 16th Brazilian Meeting of Forensic Odontology (in Portuguese, 16° Congresso Brasileiro de Odontologia Legal) received around 300 attendees, 60 speakers, and more than 100 poster and oral presentations during four days of scientific activities. It was an amazing moment for updates in forensic dentistry, as well to meet friends and colleagues around Brazil that make the speciality better and stronger.

This edition was organised by the Brazilian Association of Forensic Odontology (ABOL) and a local commission composed by students and professors, under the coordination of Prof. Suzana Papile Maciel (Sergipe Scientific Police and UNIT – Tiradentes University). A lot of information and knowledge was shared through lectures as well as workshops, combined with networking, cultural and social activities. It was a great opportunity to check what is new in forensic odontology and be in touch with professionals all over Brazil and other countries that work in forensic odontology and related fields. Some highlights of the conference:

 Following a previous Brazilian Meeting of Forensic Odontology in Ribeirão Preto, a dedicated session for the Academic Leagues in Forensic Odontology (2nd edition), which targeted undergraduate students, was also organised alongside the main event in 2024.



 The IOFOS President, Prof. Cristiana Palmela Pereira (Portugal), and Vice-President, Prof. Ricardo Henrique Alves da Silva (Brazil), attended and were Keynote Speakers in the conference.





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• Workshops were presented in different topics.



- Three books were presented and released during the conference, by editors and authors.
- Really nice social events were organised to enjoy beautiful Aracaju, a city on the Brazilian coast in the country's northeast.













 A very special moment occurred with a tribute of Honorary Member of the Brazilian Association of Forensic Odontology conferred on the IOFOS President.





Overall, it was an awesome conference, with great and unforgettable moments to the Brazilian Forensic Odontology community. Thanks to the Organising Committee, speakers, attendees, and sponsorships. See all of you in the 17th Brazilian Meeting of Forensic Odontology, in Campinas, in 2026!

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Herman Bernitz

Professor, Department of Oral Pathology and Oral Biology, School of Dentistry, University of Pretoria, SOUTH AFRICA <u>bernitz@iafrica.com</u>

Bite Mark Workshop at the 33rd Portuguese Dental Association conference in Lisbon, November 2024

The 33rd Portuguese Dental Association conference was held at the FIL in Lisbon from the 21st to 23rd of November 2024 (Fig. 1). This conference centre is situated on the very scenic banks of the Tagus River near to the Vasco da Gama Bridge, which is the longest bridge in Europe. The conference was held under the banner of FDI and was attended by over 4000 delegates.

Apart from the extensive range of lectures, the dental exhibition was something to behold with more than 100 exhibitors. All dental specialities were represented including Forensic Odontology. Invited speakers from all disciplines of dentistry and oral hygiene from across the globe shared their expertise with the many enthusiastic dentists and students from the Portuguese dental community.



Figure 1: Prof. Bernitz seen here with IOFOS President, Prof. Cristiana Pereira, at the 33rd Portuguese Dental Association conference.

The international invited guest speaker representing forensic odontology was Prof. Herman Bernitz from the University of Pretoria in South Africa (Fig. 2). On the first morning of the conference, he gave a threeand-a-half-hour bite mark workshop which was well attended. Participants were taken through the practical and theoretical aspects of bite mark collection and analysis.

The course included a one-on-one analysis of the bite mark evidence, including both macroscopic and microscopic 3D pattern fit which can be achieved both digitally and with the help of plaster models (Fig. 3). The importance of weighting dental features within a specific population was addressed with relevant case studies. All aspects of warping, shrinkage and distortion were explained in the context of giving expert witness in court cases related to bite marks. The realities of cognitive bias and an infinitely changing dentition highlighted the fact that the human dentition was only unique for a split second. Prof. Bernitz expounded on the reality of bite mark analysis often being corroborative evidence



Figure 2: Prof. Bernitz at the Bite Mark Workshop.

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and not the final "he is guilty or not guilty". By understanding this approach forensic odontologists can assist the legal fraternity in handing out justice and contribute in a positive way to Forensic Science.

On the last afternoon of the conference, Prof. Bernitz gave two bite mark lectures which included an introduction to bite mark analysis and its current status as a forensic tool in the execution of justice. He explained the difficulties of giving bite mark evidence in an adversarial legal system when global perceptions of bite mark evidence, especially in the lay press are extremely negative. He then spent the next several hours explaining the scientific basis of bite mark analysis and demonstrating its worth in a South African context where in excess of 20,000 people are murdered each year, many of them presenting with bite marks. He quoted Martin Luther King Jr. who said "Injustice anywhere is a threat to justice everywhere".

Guest lecturers and the organising committee were extremely well treated with functions on the Thursday and Friday nights of the conference. The first dinner was at the world-famous Lisbon Aquarium and the second at an indoor botanical garden in the centre of Lisbon. After the gala dinner at the gardens, there was a short theatrical interlude - one of the amateur actors being a prominent dentist in his day job! During the play the restaurant was converted to a dance floor. The fact that the last bus to the hotels was at 4am should give the reader an idea of the extent of the partying. Congratulations on a very well organised conference.



Figure 3: Prof. Bernitz with participants of the Bite Mark Workshop in Lisbon.

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Sakher AlQahtani

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3rd Saudi International Conference of Forensic Medical Sciences, Saudi Arabia, November 2024

The 3rd Saudi International Conference of Forensic Medical Sciences was organised in Riyadh from 26th to 28th November 2024 (Fig. 1). Experts from all over the globe joined together, which was a special opportunity for the exchange of ideas and explore new collaborations in forensic sciences.

One of the most striking features of the conference was the dynamic discussion among participants, demonstrating a real commitment to advancing forensic sciences following best practices. The dialogue was stimulating and impactful, with professionals sharing valuable insights, innovative methodologies, and practical experiences.

The organization of this event was brilliant. Everything was well arranged to make the experience of the attendees smooth and productive. The organizing team was very professional and hospitable, which created an environment that was conducive to learning, collaboration, and meaningful dialogues.

Dr. Sakher AlQahtani, a Saudi Forensic Odontologist, who has a grant named after him in the American Society of Forensic Anthropology (<u>https://asf</u>o.org/researchand-grants/), organised the age estimation workshop in the conference (Fig. 2). This age estimation workshop was overbooked and participants had to be turned away. It covered background of dental age estimation as well as traditional and current methods for children and adult dentitions. The development of teeth in children and young adults are good indicators of age and different staging methods on dental x-ray images were covered. Methods in adults covered measurements on extracted teeth and on x-ray images. Participants were able to test the methods in a hands-on practical exercise.



Figure 1: Delegates at the 3rd Saudi International Conference of Forensic Medical Sciences.

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Figure 2: Dr. Sigrid Kvaal, Dr. Roberto Cameriere, Dr. Sakher Alqahtani, Dr. Joe Adsreias served as resource persons at the age estimation workshop, while Dr. Suha Alfuhaid provided bone material.

Bone changes with age were demonstrated on dry bone specimens and on histological slides with participants being able to observe macroscopic changes on different dry bone specimens. DNA methylation changes with age was also covered.

On the second day, other radiological dental methods were presented related to both children and adults. A popular item was an up-to-date and practical app which facilitated age estimation. A section of the programme was also devoted to statistics, as this is important in understanding and selecting the method. Lessons learned: Methods to be chosen for age estimation is dependent on circumstances and questions asked.

The 3rd Saudi Conference of Forensic Medical Sciences, as it came to an end, left the audience very encouraged and inspired. It is without doubt a premium-grade event that nurtured growth in professionalism and innovation in forensic sciences. This meeting should be a 'must' for all forensic experts with international projection.

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10th International Conference of Indo-Pacific Academy of Forensic Odontology (INPAFO-2024), December 2024

he 10th International Conference of the Indo-Pacific Academy of Forensic Odontology (INPAFO), with the patronage of IOFOS, was successfully organized by Seema Dental College and Hospital, Rishikesh, India, from 13th to 15th December 2024 in hybrid mode. The event brought together over 450 delegates from across the world, offering a blend of intellectual, innovation, and cultural experiences to advance the understanding and applications of forensic odontology (Fig. 1).



Figure 1: About 450 delegates in the 'Ganga Auditorium' at the INPAFO 2024 conference.

The first day was dedicated to six preconference courses/workshops (PCC), fostering a collaborative learning environment. Eminent experts conducted sessions covering diverse topics viz., PCC 1 conducted by Dr. Jayasankar P. Pillai and Dr. Pooja Puri on Dental non-metric traits and population affinities: A practical application of rASUDAS tool; PCC 2 by Dr. R.K. Gorea & Dr. Parul Khare on Bitemarks; PCC 3 by Dr. Shalini Gupta & Dr. Arjun Kundu on Unveiling Faces of the Unidentified: The Art and Science of Forensic Facial Reconstruction; PCC 4 by Dr. J. Augustine, Dr. Priyanka Kapoor, Dr. Aman Chowdhry & Dr. Deepika Bablani Popli on Age Estimation; PCC 5 by Dr. William Belcher & Dr. Gargi Jani titled From Field to Lab: The Role of Forensic Archaeology in Crime Scene Investigation, and PCC 6 by Dr. B.K. Bastia, Dr. Raviprakash Meshram, Dr. Shailesh Parate, Dr. Ashish Bhute & Dr. Dilip Vaishnav, Department of Forensic Medicine & Toxicology, AIIMS, Rishikesh, on Unravelling the Truth: The Critical Role of Forensic Odontology and Medicolegal Autopsy in Justice at Advanced Autopsy Centre, AIIMS, Rishikesh. The day concluded with a serene Aarti (a Hindu ritual of worship) on the banks of the sacred Ganga (river Ganges), blending spirituality with the intellectual fervor of the event.

Over the next two days, the conference featured a stellar lineup of 11 international and 17 national guest speakers who shared their insights on cutting-edge forensic practices. The international luminaries included Prof. Cristiana Palmela Pereira (Portugal), Prof. Hrvoje Brkic (Croatia), Dr. William Belcher (USA), Dr. Hemanth Naik (UK), Dr. Selina Leow (Australia), Dr. Evi Untoro (Indonesia), Rodrigo Catelblanco (Chile), Prof. (Dr.) Emilio Nuzzolese (Italy), Dr. Mariella Izquierdo (Eucador), Dr. Ana Maria Araujo (Brazil) and Prof. Cezar Capitaneanu (Ireland). National experts like Dr. O.P. Jasuja, Dr. Dasari Harish, Dr. M.K. Sunil, Dr. Manu Rathee, Dr. Jayasankar Pillai, Dr. Aman Chowdhry, Dr. Priyanka Kapoor, Dr. Pradhuman Verma, Dr. Shalini Gupta, Dr. Shailja Chatterjee, Dr. Manoj Meena, Dr. K. Sridevi, Dr. Ranjeeta Mehta, Dr. Arushi Chawla, Dr. Parul Khare, Dr. S. Prasanna & Dr. Ruchi Jakhmola highlighted pertinent topics of forensic odontology and

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forensic medicine including Al's role in forensic odontology and its medico-legal applications.

Notable highlights of the conference were The Arto Demirjian Memorial Lecture by Dr. Susmita Saxena and Keynote lecture by Dr. William R. Belcher. The conference also featured breakout sessions of 203 scientific paper and poster presentations across faculty, postgraduate, and undergraduate students which were equally informative, covering topics ranging from forensic odontology in pediatric and prosthodontic applications to medico-legal challenges. Evenings offered opportunities for networking during gala dinners and cultural performances showcasing Uttarakhand state's vibrant folk traditions.

Padma Shri Dr. J.M. Vyas (Fig. 2), Hon'ble Vice Chancellor of National Forensic Sciences University (NFSU) in Gandhi Nagar, Gujarat, India and Dr. S.K. Sharma, Joint Director, Forensic Science Laboratory (FSL), Uttarakhand graced the occasion as Chief Guest and Guest of Honour, respectively, for the inaugural ceremony on 14th December 2024, accompanied by INPAFO President Dr. Dasari Harish and Secretary Dr. Aman Chowdhry as dignitaries, with the secretary presenting the academy's annual report.



Figure 2: Padma Shri Dr. J.M. Vyas, Vice Chancellor, NFSU, Gujarat, India, served as Chief Guest.

Dr Priyanka Kapoor as Editor in Chief, Journal of INPAFO, presented the INPAFO journal report since the commencement of her team's tenure in January 2023, sharing updates on the journal's progress, mentioning three published issues and the fourth under process with 12 original research articles, 15 reviews, and a new 'technobytes' section to highlight innovative technology or instrumentation in forensic odontology.

At the inauguration, the Lifetime Achievement Award was given to Dr. R.K. Gorea, Executive Director at Medicolegal Institute & Registrar at Baba Farid University of Health Sciences, Punjab (Fig. 3), and INPAFO Scholarship to students Dr. Sidra Aslam, Dr. Sahla Batool and Dr. Shadiya C were also awarded, followed by release of the conference souvenir—a comprehensive compilation of abstracts and proceedings.



Figure 3: Lifetime Achievement Award conferred to Dr. R.K. Gorea.

The conference also hosted a convocation ceremony for the first batch of one-year Fellowship Programme in Forensic Odontology, which was initiated in the year 2023. The fellows were awarded degrees by the Chief Guest, amongst other dignitaries including the committee comprising of Dr. Harish Dasari (Ex-officio), Dr. Aman

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Chowdhry (Ex- officio), Dr. Priyanka Kapoor (Chair), Dr. Rakesh Gorea (Ex-officio), and Dr. O.P. Jasuja. Committee members Dr. Vinod Kapoor, Dr. Cezar Capitaneanu, and Dr. Nasim ul Islam were unable to join in physical mode. The fellows who received their degrees were Dr. Anshul Chaudhry, Dr. Manusmriti Purohit Mishra, Dr. Deepika Bablani Popli, Dr. Kumuda Rao, and Dr. Karpagavalli Shanmugasundaram (Fig. 4). Additionally, an honorary fellowship was awarded to Dr. Rakesh Kumar Gorea to acknowledge his extensive contribution to the field of forensics. Appreciation address was delivered by Dr. Karpagavalli Shanmugasundaram, Organizing Secretary.

The valedictory ceremony on 15th Dec 2024 was graced by Dr. T.D. Dogra, renowned Indian Forensic Pathologist & Former Director of AIIMS, New Delhi as Chief Guest and Dr. Purnima Garg, Deputy



Figure 4: INPAFO Fellows' convocation ceremony.

Superintendent of Police, Uttarkhand as Guest of Honour. Dr. Karpagavalli Shanmugasundaram, Organizing Secretary, presented the Conference Scientific Report, while the declaration of awards for scientific presentations were delivered by scientific committee including INPAFO cash awards—Late Shri B.K. Malik Memorial Best Paper Award (Faculty) of INR 5000 by Dr. Pooja Puri, Late Shri R.L. Gorea Memorial Best Poster Award (Faculty) of INR 5000 and Best Paper student category of INR 5000 by Dr. R.K. Gorea were awarded to deserving participants and the event culminated with vote of thanks.

The resounding success of the conference was attributed to the tireless efforts of the organizing core team under the able guidance of Organizing Chairman Dr. P. Narayana Prasad, Organizing Secretary Dr. Karpagavalli Shanmugasundaram, Joint Secretary Dr. Jyotsna Seth, and Treasurer Dr. Ranjeeta Mehta. By integrating cuttingedge research with cultural enrichment, the 10th INPAFO Conference 2024, Rishikesh edition, set a new regional benchmark in forensic odontology, fostering global collaboration and knowledge exchange.

EDUCATION REPORT

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Diana Augusto University of Lisbon, PORTUGAL

> Yucheng Guo Xi'an Jiaotong University, CHINA

Luka Banjšak University of Zagreb,

CROATIA

Ilenia Bianchi University of Florence, ITALY

Victor Jacometti University of São Paulo, BRAZIL

Sudeendra Prabhu

Yenepoya University, INDIA

> Mai Britt Bjørk University of Oslo, NORWAY

ARTIFICIAL INTELLIGENCE – Where are we in Forensic Odontology? IOFOS e-Symposium, December 2024

he IOFOS organized an e-Symposium on 7 December 2024. The theme of this online event was 'Articfical Intelligence -Where are we in Forensic Odontology?' There were 414 registrations from 62 different countries. Seven research teams presented their ongoing/ completed work and there was an extensive discussion on the different topics of presentation during the program (Fig. 1), with the seven presenters answering a host of questions from participants. But earlier, the presenters were sent a guestionnaire by the IOFOS Executive Board to elicit an idea on their expectations and perceived objectives of the e-Symposium, as a whole, and on artificial intelligence and its application to forensic odontology, in particular. These presenters/speakers were from seven countries—Mai Britt Bjørk (Norway), Luka Banjšak (Croatia), Victor Jacometti (Brazil), Diana Augusto (Portugal), Sudeendra Prabhu (India), Yucheng Guo (China), and Ilenia Bianchi (Italy), and below are their collated response:

1. What are your expectations from the e-Symposium?

We are excited about the upcoming e-Symposium, particularly with its focus on Artificial Intelligence (AI) and Machine Learning (ML) in forensic dentistry. In 2023, the e-Symposium was a great platform to present our research projects and learn about the research projects of our young colleagues. This allowed us to have an interesting and educational exchange with the other speakers who share the same goal of doing good research. We expect the AI e-Symposium to be an enriching and dynamic event, filled with engaging discussions, insightful presentations, and opportunities to connect with experts at the forefront of this evolving field. The chance to explore diverse perspectives and stay updated on cutting-edge technologies is thrilling. We anticipate this e-Symposium will not only deepen our understanding but also inspire us to contribute actively to the evolving discourse around AI and ML in forensic odontology (FO).

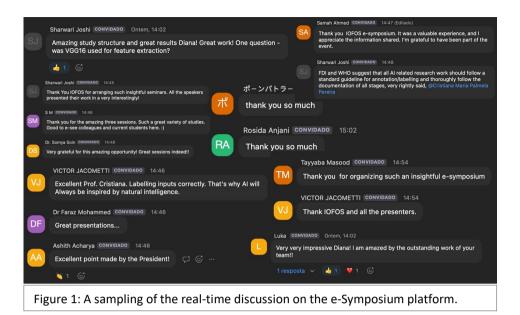
2. What are the goals of the e-Symposium?

The IOFOS e-Symposium aims to promote the integration of AI and ML into forensic dentistry, mediating collaboration and knowledge exchange among practitioners. It will also help to evaluate the present status of AI in FO with respect to different countries/ regions, the feasibility and opportunities of AI in FO and to address the possible difficulties in utilizing AI in FO.

The e-Symposium will highlight the practical application of these technologies in forensic investigations, showcase real-world case studies, and emphasize the importance of ethical considerations in implementing AIdriven solutions. It will also provide a global platform for professionals from different countries to share insights, advancing the field through interdisciplinary collaboration and ensuring forensic dentistry remains at the cutting edge of technology.

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Like in the e-Symposium last year, we expect the sharing of new perspectives in the field of the most recent research on AI, perspectives, limits, ethical and medico-legal implications. The e-Symposium encourages the next generation of researchers to share knowledge and perspectives on scientific research in forensic dentistry and explore other options and approaches along the journey to becoming a forensic odontology researcher or a senior researcher.

3. What is your general feeling about AI and ML in forensic dentistry?

AI and ML represent an exciting frontier in forensic odontology. These technologies have the potential to enhance accuracy, streamline processes, and provide objectivity in ways that manual analysis simply cannot. From automating age estimation to identifying unique dental patterns, AI/ML can offer innovative solutions to complex forensic problems. Although it is still early days, the possibilities for AI and ML in FO are vast and transformative. ML and deep learning, both subsets of AI, train algorithms to recognize patterns in data. They rely on artificial neural

networks—multi-layered algorithms that identify specific features within images. Deep learning is a more sophisticated form of ML, utilizing additional layers to handle more complex data analyses.

However, an algorithm's ability to perform segmentation is only as good as the data it has been trained on. The diversity of the material affects the number of datasets required for effective training: more variation demands a larger dataset. In theory, each training cycle improves precision, but this increased accuracy is limited to images similar to those used in training. When faced with datasets containing different anatomical features, the algorithm's precision may decrease.

Al and ML have become vital in forensic dentistry investigations, enhancing the precision and efficiency of dental identification processes. The integration of AI and ML into forensic dentistry adds a distinctive, high-tech perspective that complements traditional forensic methods, making them indispensable tools for the pursuit of justice. **Newsletter of the INTERNATIONAL ORGANIZATION for FORENSIC ODONTO-STOMATOLOGY (IOFOS)** *Volume 46, Issue 2, December 2024 | www.iofos.eu*

Al continues to be a divisive issue, and we believe it's essential to maintain a mindful balance between Al research and its practical uses.

Undoubtedly, building robust scientific research is the basis for the development of technology of various levels of AI that can effectively be produced, certified, and marketed in the world and in Europe (AI Act 2024). We hope the e-Symposium could help understand the potential and weaknesses of AI applied to forensic odontology. It is groundbreaking and will surely be very important to FO practices in the next few years. Also, basic knowledge in AI will be mandatory to keep quality standards in practice and research.

4. Do you feel you are getting adequate access/support to undertake research related to AI/ML in FO?

The access and support for AI/ML research in forensic odontology are improving, but there is still some way to go. Collaboration between forensic experts and data scientists is essential, and although interdisciplinary partnerships are growing, more institutional backing is needed. Infrastructure such as advanced computing power and well-structured datasets is often limited, but we are optimistic that with the increasing recognition of Al's potential in forensic science, support will continue to grow. Collaboration with other researchers and departments allows us to share computational resources and insights. By working together, we distribute the computational workload and make better use of the available infrastructure. This collaborative approach also provides access to specialized software and tools that are essential for certain aspects of the

analysis, which one might not have been able to utilize as efficiently on their own.

It is challenging to quantify the level of support AI and ML currently receive in forensic dentistry. We think that in order to truly enter the world of AI, towards which the future is undoubtedly projected, it is appropriate to undertake multidisciplinary training involving experts in the different field of application (forensics, medicine, etc.), IT experts and programmers, and medical-legal experts in the field of liability. Without an approach that involves multiple and different professionals, the risk is that of incorrectly interpreting AI as a substitute for humans rather than a support for human operators. Undoubtedly, we must move towards the automation of many processes, even in the field of FO, but without seeking the impossible perfection as much as the most reliable result. We hope to have more access/support to undertake research related to AI/ML in forensic dentistry.

5. What are the challenges you have faced (if any) in starting or completing research related to AI/ML in FO?

A significant challenge in conducting AI/ML research in FO is the lack of standardized, large-scale datasets. AI systems thrive on high-quality data, and gathering comprehensive dental data for forensic purposes is difficult due to privacy laws, ethical considerations, and the specialized nature of the data. Additionally, including AI as a tool to enhance segmentation efficiency and objectivity represents a promising avenue for improvement. AI is a fast-growing field and is expected to be an essential tool **Newsletter of the INTERNATIONAL ORGANIZATION for FORENSIC ODONTO-STOMATOLOGY (IOFOS)** *Volume 46, Issue 2, December 2024 | www.iofos.eu*

in medicine in the near future. It has the potential to facilitate volume measurements of every single tooth in one participant. Regarding segmentation of the 3rd molars, with its complex root system, it requires a very large dataset and the need of manual corrections may always be considered. Research in AI and ML is essential for advancing forensic dentistry, refining identification techniques, and solving emerging challenges. Technologies such as AIpowered imaging, 3D dental scanning, and predictive algorithms are revolutionizing the field, improving both accuracy and speed in forensic investigations.

The main difficulty in constructing a reliable study on AI depends on a correct and appropriate choice of the training and test sample. The main goal must be to create AI that does not learn from human errors and thus can truly generalize its results. Therefore, AI must be trained without prejudices of any kind, even unconscious ones based on professional experience.

To work with AI is to work extensively with programming and statistics, so teams have to be preferably multiprofessional and our own studies also have to overcome the barrier of FO. As dentists, our first challenge is to seek assistance from professional experts in the field of AI and collaborate with them. Secondly, it is about effective communication and collaboration among different professionals, how to enable AI experts to understand FO issues, and how to enable medical researchers to conduct professional validation of the models.

6. What is your opinion related to research in the field of AI/ML in forensic odontology?

Research in AI/ML for forensic dentistry is crucial and has enormous potential to advance the field. While the existing research is still limited, it is pioneering. AI could revolutionize the way we approach forensic identification, making processes more efficient and objective. However, for AI/ML to reach its full potential in FO, more funding, collaboration, and a stronger focus on data standardization are essential. AI/ML will eventually become integral to forensic odontology, offering breakthroughs in areas like age estimation and dental identification.

Al is the future and it has to be adopted in forensic odontology. However, this requires abundant research in different populations, which can only happen with adequate support from Government and forensic odontology official bodies, which are members of IOFOS. IOFOS and its member societies in different countries have to initiate programs to help and support researchers in this area (which includes scientific/technical/financial support). Interdisciplinary collaborations with fields like genetics, data science, and biometrics will likely contribute to more comprehensive investigations. As AI and ML research continues to evolve, we can expect the development of standardized protocols and ethical frameworks, enhancing the credibility and efficiency of forensic dentistry in the future.

The research in the field of AI could be a useful panorama to better understand what the most appropriate future directions could be. Forensic odontology is implementing age estimation and image-based personal identification in a promising way using AI. Newsletter of the INTERNATIONAL ORGANIZATION for FORENSIC ODONTO-STOMATOLOGY (IOFOS) Volume 46. Issue 2. December 2024 | www.iofos.eu

7. How do you expect the future of forensic odontology to be shaped bv AI/ML?

AI/ML will likely play a transformative role in the future of forensic odontology. We expect to see automated tools for dental analysis, particularly in areas like age estimation, bite mark analysis, and individual identification. Al's ability to process large datasets quickly will lead to faster, more accurate results, reducing the burden on forensic experts. In the long term, Research has begun to explore the use of advanced imaging techniques like AI-enhanced imaging and ML algorithms to improve the accuracy and reliability of age estimation. Preliminary findings suggest that these technologies could offer significant improvements in both accuracy, objectivity and efficiency of forensic odontology in legal and investigative contexts.

AI and ML are expected to significantly enhance forensic odontology by improving the speed, accuracy, and reliability of dental identification processes. With AI, algorithms can be trained to analyze dental records, Xrays, and other imaging data more efficiently than traditional methods, aiding in quicker identification of individuals. ML models can also detect subtle patterns in dental structures,

which could lead to advancements in age estimation and trauma analysis. Additionally, AI could facilitate the creation of centralized databases, enabling faster cross-referencing of dental records on a global scale, thus enhancing the field's reach and impact in forensic investigations.

Al is helping in many scientific specialties and diverse research areas. All opportunities have to be explored with respect to AI in forensic dentistry so that this can be utilized in real life cases. However, we believe it will be a good adjunct but never will be able to replace conventional techniques and human intelligence. Having said that, it is a welcome move by IOFOS to organize such an international event, bringing researchers from different parts of the world to a single platform, which may help to further enhance research in this area. By providing paradigm shifts in age estimation and human identification fundamentals and techniques, and automatization of lengthy/complex processes, it can lead to an overall enhancement of the area. The implementation of AI and ML is expected to enhance the intelligence and user-friendliness of forensic odontology, minimize manual errors, and increase the efficiency of inspections.



Luka Banisak



Sudeendra Prabhi

EDUCATION ANNOUNCEMENT

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Hrvoje Brkić

Treasurer, IOFOS

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INTERNATIONAL WORKSHOPS IN 2025 by IOFOS:

International Course on Personal Identification by Dental Methods, Lisbon, Portugal, April 2025

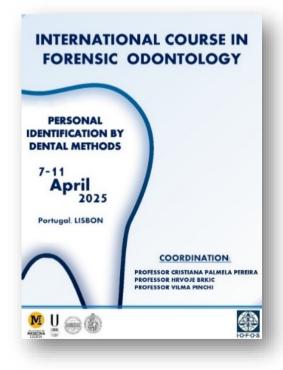
he course is designed to provide practicing health professionals and all related professionals with skills and experience in the field of forensic victim identification by dental methods, such as in the circumstances of Disaster Victim Identification. A personal identification by dental methods qualification allows dentists to perform forensic examinations on unidentified dead bodies as required by law enforcement agencies, courts, or medical examiners (coroners). The course offers an emphasis on practical aspects of human identification single and DVI cases and an in-depth understanding of the correct professional handling, examination, interpretation, and presentation of evidence which may come before the legal authorities. Forensic Odontologists provide an important service to the community in both civil and criminal jurisdictions.

This course is designed for practicing forensic odontology experts who wish to gain experience in the professional field of human identification by dental methods, and for all professionals who are somehow starting in the field. This course covers all aspects of the human dentification process in the context of DVI and single dead bodies, from making decisions at the initial forensic examination, through to writing a forensic report. The Course will be held from April 7 to 11, 2025 at the School of Medicine University of Lisbon, Portugal.

The pre-registration needs to be until January 30th, 2025. To pre-register you need to fill out a form and mail it to treasurer@iofos.eu.

The number of participants is limited to 20. Official language will be English.

MORE @ <u>https://iofos.eu/the-</u> international-course-on-personalidentification-by-dental-methods/.



EDUCATION ANNOUNCEMENT

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International Workshop on Age Estimation, Florence, Italy, July 2025

The International Workshop on Age Estimation is designed to provide practicing health professionals and all related professionals with skills and experience in the field of forensic age estimation. An age estimation gualification allows dentists to perform forensic examinations on age assessment as required by law enforcement agencies, courts, or medical examiners (coroners). The workshop offers an emphasis on practical aspects of age estimation and an in-depth understanding of the correct professional handling, examination, interpretation, and presentation of evidence which may come before the legal authorities.

Forensic Odontologists provide an important service to the community in both civil and criminal jurisdictions. This course is designed for practicing forensic experts who wish to gain experience in the professional field of age estimation, and for all professionals who are somehow related to the different areas of intervention of age assessment. They are professionals in the field of law, medicine, and other areas. The Course will be held from July 7 to 11, 2025 in the School of Human Health Sciences, University of Florence, Florence, Italy. The pre-registration needs to be until April 30th, 2025. To pre-register you need to fill out a form and mail it to treasurer@iofos.eu.

The number of participants is limited to 20. Official language will be English.

MORE@ <u>https://iofos.eu/the-</u> international-workshop-on-ageestimation/

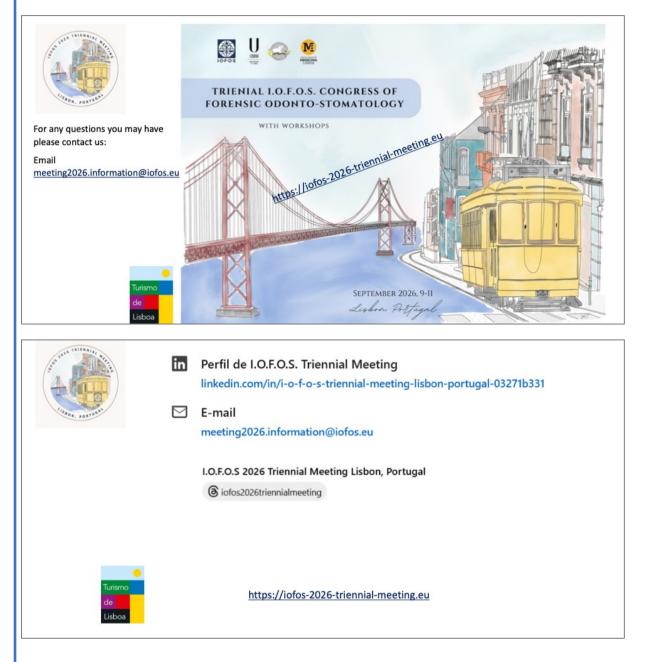


MEETING/CONFERENCE ANNOUNCEMENT

Newsletter of the INTERNATIONAL ORGANIZATION for FORENSIC ODONTO-STOMATOLOGY (IOFOS) *Volume 46, Issue 2, December 2024 | www.iofos.eu*

Triennial IOFOS Meeting 2026, Lisbon, September 2026

Please follow information of the meeting on social media:



SEASON'S GREETINGS

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