



NEWSLETTER

INTERNATIONAL ORGANISATION FOR FORENSIC ODONTO-STOMATOLOGY

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South African Thunderstorm – J Bernitz

Editor's page



Dear Colleagues

I am happy to announce that I will still be your editor for the next three years. Thank you for re-electing me for this position and I will do my best to get the Newsletter through to you as soon as there is enough to include in an edition.

As I stated in my previous letter, the worst part of being Editor of the newsletter is to get members to contribute content for the newsletter. I urge you all to send me interesting news of your societies or cases you were involved in to publish in the newsletters or even ideas you might have to improve the quality of this communication medium. Also, should there be any other issues you want me to include, please do not hesitate to contact me on my e-mail at Sonja.boy@up.ac.za. This will enable me to send out more than two or three editions per year.

I also wish to congratulate the new executive of IOFOS and to wish them all the best for the next three years. May it be a fruitful time for forensic knowledge and excellence in the field!

Best wishes to all

Sonja C. Boy

Editor: IOFOS Newsletter

President's Page



Dear Colleagues

In line with global trends and advances in communication techniques, the new IOFOS executive is an international mix of individuals from around the globe. I remain President (South Africa), Tore Solheim (Norway) takes over as vice President, with Christophe Rallon (France) as Treasurer/Secretary, Zephné Bernitz continues as Web Master, Jules Kieser (New Zealand) as Journal editor and Sonja Boy (South Africa) as News-letter editor. This international mix will lend itself to new and innovative ideas which will hopefully be to the benefit of the organisation at large.

The meeting in New Orleans was poorly attended when compared with the Hong Kong meeting three years back; there were only 7 presentations in the forensic odontology section. The Ferdinand Strøm award for the best presentation by a young researcher was awarded to Dr CMP Pereira from Portugal for her presentation entitled "Identification of an unidentified skeletal assemblage from mass grave-1755 earthquake of Lisbon: Palaeodemography and palaeopathology identification by dental parameters – part 1." There were however other sessions of interest to our discipline including forensic anthropology and a very well run workshop on mass disaster management. The conference was generally disappointing as a result of several "no shows", poorly run meeting schedules, no opening ceremony, no entertainment at the gala dinner, certificates printed in black and white on ordinary A4 paper, not signed and the list goes on and on. It was a poorly organised conference in my opinion. The next IAFS meeting will be held on the Madeira Islands in 2011 just off the coast of Portugal. This promises to be a meeting not to be missed. As always, this will also coincide with our general assembly, and election of the next executive.

It was decided at the first meeting of the newly elected IOFOS executive (held during the New Orleans meeting) that a dedicated IOFOS conference would be held in France during 2010. The theme will be "Computerisation in Forensic Dentistry". We hope that this will be well attended as it is conveniently situated for most Europeans, and equally far for South Africans, Australians, Canadians and members from the USA.

I hope that by this time most of you have visited the web page www.IOFOS.eu and have read the first electronic addition of the Journal of Forensic Odonto-Stomatology. The first reports have been very positive, but your feedback will be highly appreciated. Change is always difficult to accept but I believe that this is a step in the right direction. As I have mentioned before, being free on the Web does not mean that it is in any way inferior: Google Earth and Wikipedia are also free. Jules has done a great job in editing the articles received, and I encourage you all to support the journal in the future. Articles can be sent direct to Jules at jules.kieser@stonebow.otago.ac.za

I also encourage member societies to send articles of interest to Sonja, so that the newsletters are well representative of our organisation at large. Articles can be sent to sboy@postillion.up.ac.za .

Some of the members present at the IAFS meeting in New Orleans. From left to right: Christophe Rallon, Tore Solheim, Herman Bernitz, Jim Schneider and Cristiana Pereira



Herman Bernitz (IOFOS President) with Cristiana Pereira, winner of the Ferdinand Strøm prize for the best presentation by a young researcher.



Meet the New IOFOS Executive

In line with global trends and advances in communication techniques, the new executive is an international mix of individuals from around the globe. Herman Bernitz remains President (South Africa), Tore Solheim (Norway) takes over as vice President, with Christophe Rallon (France) as Treasurer/Secretary, Zephne Bernitz as Web Master (South Africa), Jules Kieser (New Zealand) as Journal editor and Sonja Boy (South Africa) as News-letter editor.

The new banking details will be passed on to you as soon as it is ready.

We intend to put the money (in Euros) in a fixed savings account so as to accumulate interest at the best rates possible.

Herman Bernitz (South Africa) as President

Herman Bernitz is a private dental practitioner and part time senior Stomatologist in the Department of Oral Pathology and Oral Biology, University of Pretoria , South Africa . He completed his B.Ch.D in 1978, his M.Sc. (Odont) *cum laude* in Oral Pathology in 1996, and his Dip. Odont. *cum laude* in Forensic Odontology in 1998. His Ph.D in Forensic Dentistry (2004) was entitled "A Model to Determine the Individual Discrimination Potential of Numerically Analysed Dental Features in the Anterior Twelve Teeth". He lectures in Oral Pathology and Forensic Dentistry, and is manager of Forensic Dental Research. Since 1998 he has acted as forensic consultant during which time he has been involved in all aspects of Forensic Dentistry. He regularly acts as expert witness in Supreme Court cases involving tooth marks. He has attended courses/delivered papers related to forensic odontology, and has published internationally. He is a member of the Editorial Board of the Journal of Forensic Odonto-Stomatology.

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Tore Solheim (Norway) as vice President



Professor of pathology and forensic odontology in the Dental Faculty of Oslo, Norway. Has been active in forensic odontology since 1971 and has been responsible for the service to the police in Norway since 1974. Member of the Norwegian identification commission connected to the Central Criminal Police Bureau in Oslo since 1975. Accepted by the Department of Justice as a forensic medical expert in odontological questions in 1976. Chairman of the Norwegian Society

of Forensic Odontology in several periods. Main research interests are methods of age estimation and analysis of frequencies of dental details for identification and tooth mark comparison.

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Christophe Rallon (France) as Treasurer/ Secretary



Christophe Rallon was born in 1965. He completed his B.Ch.D in 1990 in Dental Faculty of Paris, France. Then he served for one year in the Army Health Department in Toulon. Since 1991 he has a private practice in Fréjus. He post-graduated in forensic odontology in Dental Faculty of Lyon in 2004. Since 2004 he is really involved in the french activities of dental identification. He is interested in computerization and image processing.

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Jules Kieser (New Zealand) as Journal editor



Jules Kieser obtained a BSc from the University of the Witwatersrand in 1971, and went on to qualify as a dentist in 1975. He received his PhD in 1989 and was appointed as Reader in Craniofacial Biology and Honorary Professor of Anatomy at Wits. In 1996 he was appointed to the Chair, and Head of the Department of Oral Sciences, University of Otago in Dunedin, New Zealand. He subsequently obtained his DSc in 2001 and was awarded an *ad hominem* Fellowship in Dental Surgery from the Royal College of Surgeons, Edinburgh. He was recently elected as a professional Fellow of the Forensic Science Society (UK). His forensic research involves the biomechanics of trauma, bacterial fingerprinting of bitemarks and marine decomposition. Jules leads the Forensic Biology Group at Otago University. He has published over 140 full length refereed articles and has presented papers and courses all over the world.

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Sonja Boy (South Africa) as News-letter editor

Sonja Boy obtained her BChD degree at the University of Pretoria in 1995. After 2 years of running her own private practice in Pretoria, she started specializing in Oral and Maxillo-Facial Pathology at the University of Pretoria. She obtained her degree *cum laude* and is currently appointed as associate Professor and senior specialist in Oral and Maxillo-facial Pathology at the University of Pretoria. She is the author and co-author of several scientific publications in International and National scientific journals. She has delivered various International and National congress presentations and is a member of several professional organisations of Dentistry, General Pathology, Maxillo-Facial Pathology as well as Veterinary Dentistry. She is the course organizer of Oral Biology for pre- and post-graduate students, the promoter of several pre-and postgraduate student research projects and is currently busy with her PhD in Oral Pathology.

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Journal of Forensic Odonto-Stomatology

Please visit the website at www.IOFOS.eu and click on The Journal of Forensic Odonto-Stomatology NOW ONLINE Vol 27:1 June 2008 for the latest edition.

IOFOS General Assembly, New Orleans, July 24, 2008

Oslo, August 6, 2008 – By Tore Solheim

1. Societies present: France, South Africa and Norway. Apology was only sent from Denmark and asking that Norway also would represent Denmark. Dr. Jim Schneider was accepted to represent the US, thus making **5 societies with voting rights**. A few other interested individuals met.

2. The president's report

The report also contained the financial report as the treasurer Guy Willems from Belgium was not present. It also included the report of the Journal of Forensic Odonto-Stomatology as the new editor Jules Kieser from New Zealand was not present.

The president started by thanking all his collaborators for their help during these 3 years. Twenty national societies are now member of IOFOS (see www.iofos.eu). During this period Austria, England, Israel, New Zealand and Thailand have become members.

The main activity had been the arrangement of the IOFOS meeting in Cape Town, South Africa 2007. A total of 68 individuals were registered for that meeting. Also a lot of effort had been put into the website and updating it. A necklace (gong?) for the president of the organisation was produced and was a gift from the South African Society. Newsletter has as often before struggled to get articles. A lot of efforts had been put into that but disappointingly few societies responded, not even to the degree that they sent the yearly report as required by the Regulations. The work of Sonja Boy was, however, highly appreciated.

There was no suggestion for change in the fee for each society. Thus it will be kept at Euro 75 per year and each society is urged to pay for the whole 3 year period. Even though the expenses are reduced, money can be used for travel and for subsidizing meetings and courses.

It was noted that a number of individuals from countries where there is no society has shown great interest in IOFOS and it is encouraged. They have free admittance to the IOFOS web page. They may meet at the General Assembly and have the rights to talk and suggest, but no voting rights. In addition by keeping a mailing list of these persons, the Newsletter can be sent without expenses. This was approved by the General Assembly. Any collection of money was considered cumbersome and with substantial loss of bank charges. Therefore, it was decided to not to collect any fee from individual interested person. However, it was decided to prepare a formal statement in the Regulations about such members to be voted on at the next General Assembly.

3. Economic report

The Journal of Forensic Odonto-Stomatology has 19277.23 Australian \$ and the account of IOFOS by Guy Willems in Belgium amounts 5433.03 Euro. 500 Euro is taken away for the Ferdinand Strøm Award. The expenses for the period had been virtually none as Internet has taken over for the post. However, a small sum had been used for the Web site.

It was decided to keep all money in Euro in one of the European countries. The Australian account will be transferred to Europe.

4. Report of the Journal of Forensic Odonto-Stomatology

During this period dr. Helen James from Australia resigned as editor. She was thanked for the excellent job she had done as editor. To find a new honorary editor was not easy. First Dr. Geoffery Craig from England accepted the job, but as he became seriously ill he had to withdraw. After considerable search Dr. Jules Kieser from New Zealand accepted to be honorary editor.

After considerable discussion about the way of publishing the Journal where the suggestion was only to publish it as and Internet journal and not as a written journal, the president decided for only the Internet journal. It is posted on the web page and is free for everyone to read. Thus, it involves no expenses and no subscription is necessary. The quality should remain unchanged and the editorial board will continue their work. According to the president this may even be better than a written journal, but ISI approval is needed.

5. Election

The election committee (Germany, Australia and France) had not come up with any suggestion for 2 new societies to host the IOFOS executive. The president did not meet a good response when he contacted the committee for suggestion.

To keep IOFOS floating until next General Assembly in tree years time an *ad hoc* solution was accepted. As there was no suggestion Herman Bernitz had to continue as president and the following were accepted by unanimous vote of the General Assembly.

The new executive:

President: Herman Bernitz, South Africa

Vice president: Tore Solheim, Norway

Secretary/treasurer: Christopher Rallon, France

Editor of Newsletter: Sonja Boy, South Africa

It was already decided that the next IAFS meeting in 2011 will be at the Madeira island, Portugal, Christiana Pereira, Portugal was chosen as IOFOS official representative in the organizing committee for that meeting. Jules Kieser (New Zealand) continues as editor of the Journal of forensic Odonto-Stomatology.

With the global trends and advances in communication techniques, the new Executive is an international mix of individuals from around the globe. We hope this will not cause any big problems.

The new banking details will be circulated as soon as they are available. We intend to put the money (in Euros) in a fixed savings account so as to accumulate interest at the best rates possible. A news letter will be sent out within the next few weeks with all the relevant information, a report of the IAFS meeting in New Orleans, the new on-line journal (www.IOFOS.en see new on-line journal) and general matters regarding IOFOS.

It was also decided to hold the next IOFOS meeting in Lyon , France (some time in 2010). The exact dates will be published shortly so that we can all plan far in advance. The theme will be computerisation in forensic dentistry, and the meeting will be convened by Christophe Rallon.

I would like to thank the previous executive for all the hard work that they put in to the organisation over the past three years and encourage you to remain active in the organisation.

As election committee for the next executive was chosen: Australia, France and USA.

No auditor was chosen and it will be up to the executive to find an auditor for the next tree years.

6. Other businesses

Tore Solheim, Norway suggested to set up a committee to be responsible for the quality assurance recommendations and updates to these. He was given the responsibility to approach 3 persons from different countries to set up such a committee.

Tore Solheim was also disappointed that presidents of national societies do not respond in a proper way to the IOFOS or sometimes not respond at all. In the previous General Assembly he had set up suggestions for supplementary instruction obligations for national societies which were voted down. He will prepare a new suggestion for the next General Assembly.

The general Assembly was closed. **The Ferdinand Strøm Award** was given to **Dr. Christiana Pereira, Portugal for the excellent and interesting presentation: "Identification of an unidentified skeletal assemblage from a mass grave- 1755 earthquake of Lisbon"**.

Feedback on Eighteenth triennial meeting of IAFS in New Orleans, July 21-25, 2008

By Tore Solheim

This meeting of IAFS (International Association of Forensic Sciences) is only arranged every three years. It is a joint meeting for a number of forensic sciences, also forensic odontology where the International Organisation for Forensic Odonto-Stomatology (IOFOS) has its scientific meeting and also general assembly.

The meeting this year did not have so many participants, only a total of about 800 while the previous meeting in Hong Kong had gathered about 2000. This may be partly due to the time and also the American way of arranging with abstract sent in long time before the meeting. Many interested persons will not get money for participation if they do not make a presentation. Therefore it was only about 10 forensic odontologists present.

Presentations on forensic odontology

Aka Sema from Ankara, Turkey talked about age determination of foetus and newborn children by the development of primary teeth. She had measured vestibular-lingual and mesio-distal dimensions, crown height, crown thickness and root length on 480 teeth she had collected from autopsies and aborted fetuses. Up to 52 weeks after conception crown height and crown thickness was most effective. Later the root length was most effective.

Paul George from Singapore gave a paper on the radiological ossification of 2. and 3. molar in relation to epiphyseal changes in the elbow region in 3 Malaysian ethnic groups and Indians. 300 children between 12 and 25 years were examined. Only minor ethnic differences were found and the ossification occurred at about 16 years of age. Women were 1 to 2 years earlier than men. This may be used to estimate the age of children in the case of rapes and also if they are below 14 years of age when they are not allowed to work. He also found that Indians were earlier in their dental development than Malaysians while Chinese were later.

Mary Piamba from Colombia told about odontologic identification of a cut up woman body. Part of the body inclusive the head was found in a trash bag. The torso and the rest of the body were found on the ground close by. The fingers were cut so no identification by fingerprints was possible. However, it was possible to locate the dental record and subsequently identify the woman. In Colombia there are about 17000 murders every year and identification by fingerprint and by odontology is tried first. If this does not give results DNA comparisons are made.

Cristiana Pereira from Portugal told about an earth quake and the subsequent tsunami in Lisbon November 1. 1755. Many people died and were buried in a common grave in the Jesus Monastery. In 2004 restoration work was carried out in the monastery which now belongs to the Lisbon Academy of Science. A large amount of bones, both human and from animals and fish were found. In addition 1099 exarticulated teeth were found. The minimum no of individuals was assessed to be 79. The remains showed sign of fire with a temperature up to 300 degrees. Many teeth were fractured. The teeth were described and attrition according to the Pedersen's system (1-3) and hypoplasias, 4 types and 3 grades were registered. A lot of calculus was found on many teeth. Only two teeth were obvious negroid. The rest could be from Europeans. Pereira was awarded the Ferdinand Strøm Prize for this work.

Robert Barsley from New Orleans gave a description of the hurricane Katrina and the ensuing damages. The lecture was much centred on the hurricane and the damages due to the flooding. American DMORT teams were responsible for the Identification work. Many people was hospitalized and died there. In total 1106 bodies were examined. In addition about 1200 body parts which had flooded away from the cemeteries and were also brought in. In New Orleans dead people are not buried under the earth, but instead in boxed above the earth. I heard later that now every dead person will be given mark around the foot with name and grave no. to prevent the confusion which occurred after the Katrina. 53 % of the dead were of African origin. More than 2/3 were 61 years and older. Many older people did not make it to a safe spot.

Herman Bernitz from South Africa gave a description of weighting the dental data for identification. He claimed that the frequency of different dental details never had been examined. Therefore the weighting of details for identification is subjective, but still scientifically acceptable. In a case where he had participated 2 dead persons from a third world country was to be identified. Only a few details were present and some did not fit. However, radiographs showed that the record was wrong. Weighting of a few but characteristic details led to identification.

Other interesting presentations

It was not many odontologic papers presented and this gave the opportunity to go to other sessions for lectures. I appreciate this and I think it normally to a larger degree should be arranged with this possibility.

Jiri Sajdok from Czech Republic held a lecture in the anthropological section with the title "Morphological, chemical, molecular biological methods of human age estimation". Morphological methods are still most frequently used in daily practise. Chemical methods including amino acid racemisation and the assessment of pentosidine which is one of the products of non-enzymatic browning in tissues may also be used. The authors now try to use DNA analysis and they concentrate on two possible methods. It is shown that the telomeres of the DNA molecules are shortened with increasing age. It occurs with different speed in different tissues, but it could in the future lead to a useful method for age calculations. Also the study of the gene expression using micro arrays may in the future provide a new tool for age calculation.

Niels Lynnerup from Denmark was one of the few Nordic presenters. The crystals in the lens of the eye consist of special protein which is never remodelled. They are formed in it entire during foetal period and the first year of life. The content of C¹⁴ will reflect the atmospheric content of the isotope. During the atomic bomb testing in the 1960 years the atmospheric content of C¹⁴ increased and it has later dropped again to near normal level. Using tables the age at death can be calculated with an accuracy of plus/minus 1.5 years. However, the analyses must be performed less than 5 days after death so that decomposition not has destroyed the proteins. Similar studies have been performed on teeth. The problem is though that the teeth are formed during a more prolonged period of time making the results more unreliable. A few years back we used a similar method on teeth based on Strontium 90 isotope examinations. Also this isotope has had similar changes due to the atomic bomb tests in the atmosphere.

Alexander Pilin from Czech Republic talked about the preparedness for disasters in the Czech Republic and the lecturer was called "The airport 2007". They are basing their work on the Interpol guide and forms which have been translated to Czech. Under the Ministry of Interior professional teams are organized to carry out the identification after disasters. In 2007 a mock exercise was organized where the examination of dead persons and the use of computers for entering data were trained. The organization and the handling of disasters were also trained. The only difference from the organization in Norway was that the fire brigade was responsible for site of the accident and collection of victims. It is excellent that "new" countries really do something to improve the preparation for accidents. Most accidents come like "Christmas on the woman" as is said in Norway.

Olga Barragán from Columbia in a presentation called “Childhood interrupted” focused on child abuse by showing a video based on a real story where a 5 year old girl in Bogota. It was based on what the parents, the stepfather, grandmother, school teacher and the police could tell. The video is a report about violence against children as it occurs every day in Colombia and showed how the life was from day to day for the 5 year old girl. Even though the video was in Spanish all in the audience had tears in their eyes when the video was finished. The tragedy becomes more personal when it is connected with a specific person. It was made to increase people’s awareness on child abuse and to show the weakness of the official authorities in handling such cases. It was also made to urge the authorities to take the constitutional rights of children more serious.

Erin Ross, psychologist from Western Ontario, Canada, held an interesting lecture on “the executive cognitive functioning capacity” in first time offenders, return offenders, and controls. This is a psychological test and it has often shown low values in offenders. She claimed that the treat of being put in prison does not prevent offenders from committing crimes. Rehabilitation programs exist but none is evaluated for measurable effect in this test. She also gave the shocking information on statistics. USA is the country with comparatively most of their citizens in prison, namely about 740/100 000 inhabitants, while Canada only has about 150/ 100 000. European countries are approximately around the Canadian level. A total of 25 % of all people in prison on the earth are in the US. She had tested a group of offenders divided in first time offenders, return offenders and controls. Astonishingly first time offenders scored at the same level as controls, while return offenders scored much lower. Return offenders who had been through rehabilitation programs had even lower scores. This should be taken into account when setting up such programs in the future. She thinks it is often congenital defects or the result of head trauma which result in return offenders.

Michael Trimble from “US Army Corps of Engineers” told about a team which was assigned by President Bush in May 2004 to examine mass graves in Iraq. The purpose was to find evidence for the war tribunal against Saddam Hussain and his co-workers. Especially after the Shia uprising in 1991 was many people just driven into the desert, shot and placed in mass graves. From 2004 to 2007 was 9 mass graves excavated and examined. Reconstruction of what happened was done with the help of a system called GIS (Geographic Information System) which is satellite based. The work was very difficult and the experts had all the time to fear for their lives.