



NEWSLETTER

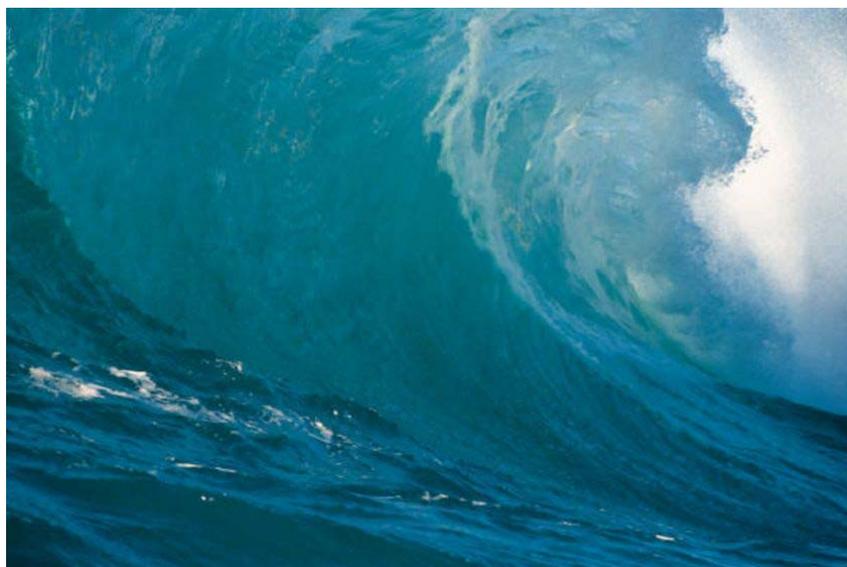
INTERNATIONAL ORGANISATION FOR FORENSIC ODONTO-STOMATOLOGY

Nr. 1

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Editor's page

Tsunami

When the disaster hit Asia on the 26th of December 2004, a new word came into our vocabulary: *Tsunami*. We might have heard the word before, but these last weeks this word has been on the lips of almost everyone in the entire world many times a day and has become a well known word even in the Norwegian language. Tsunami is the Japanese word for harbour wave, a term that Japanese fishermen long ago named the large waves that on rare occasions destroyed their villages while they were out at sea, where no big waves or wind had been noticed.

As the area affected by the tsunami of Dec 26th includes popular holiday destinations like Sri Lanka, Thailand, Maldives and Malaysia, many travellers and tourists from all over the world became part of a disaster far from their homeland. The tragedy of the unbelievably high numbers of dead and missing people, adds to the loss of homes, drinking water, food and work for so many of the people that survived. The total number of confirmed dead or missing people is now 163.000.

11 countries were directly hit by the tsunami and tourists from 47 other countries lost their lives in the disaster. From South America and USA in the west to China in the East, - from New Zealand in the south to my own country Norway in the north, were all involved.

No other disaster caused by nature has ever included so many countries, and what we see now - is the most extensive forensic cooperation in the history. Specialists from all over the world offer their expertise. We cannot help thinking "What if we all used the same system..." Maybe we see the value of a common approach, but we will undoubtedly learn a lot from the identification work, that will go on for many months.

The IOFOS executive board will be working on shift in Thailand, where 90 Norwegians are dead or missing. As I am leaving for Thailand myself on Monday, this Newsletter will have to be a little short and defective.

The tsunami that hit the Indian Ocean in the Christmas Holiday brings the entire forensic world together in action and mental support.

Wencke Stene-Joansen, Editor IOFOS Newsletter. wenckesj@oline.no



Presidents Page

Dear colleagues!

A new year is ahead of us with a number of new opportunities in the field of forensic odontology courses and meetings. It is just a question of choosing the activities that will be useful for you. For some of you an extended diploma course in Forensic odontology may be considered. We cannot choose for you, but we are willing to offer information and advice.

The member societies of IOFOS

Being a member of IOFOS includes a number of responsibilities for each society. I am not sure all presidents/chairmen/leaders are aware of it. First the fee has to be paid. That is generally no problem. According to the regulation (no 3c), a report at least once a year is required. Usually the editor has to ask for it. If IOFOS should function as it is intended, the Newsletter should be distributed to each individual member of the society. Furthermore it should be a self evident duty of each society to answer letters or e-mails from the executive. Also each society should accept any invitation to be candidate for the IOFOS executive or any other committees. (It is up to the member society to appoint the individuals to serve) This does not always happen and I feel a need for supplementary instruction of the duties for the national societies. It will be proposed at the General Assembly in Hong Kong.

The Ferdinand Strøm award

As proposed at the general assembly in Montpellier, an award of Euro 500 is set up for the best project presented by a young scientist in forensic odontology in Hong Kong. Further announcement will be found in the Newsletter. Also a set of supplementary instruction for this award will be proposed at the General Assembly in Hong Kong. We see this as an attempt to further scientific work in forensic odontology and it is in accordance with our objects (no. 2b). Again, to match other fields of forensic science we need good and relevant scientific investigations. This is one way to encourage such work. We seriously advice prospective young investigators to compete for this award and we hope for many good reports in Hong Kong.

IOFOS guide for quality assurance in forensic odontology

From IOFOS' point of view, these guide lines are so far finished and included in our Website. Please take time to read them and consider applying them in your practical work and reports. We will ask the member societies to accept them as part of their quality assurance system. I am also sure these guide lines will raise a number of critical remarks from our colleagues. So far I feel we have had a democratic process and so many as possible has had the opportunity to comment. However, in Hong Kong we will again discuss the recommendation for "Identification" and I will invite a few speakers to come with critical remarks. If you feel this is something for you, please announce that to me.

Deadline for application to IOFOS course in identification in Oslo, Norway

If you consider this course or know another person who might be interested please observe the deadline for application which is March 15. We already have a few registrations and the 20 first who register will be admitted. Also observe that this may be the last time the course is arranged in Oslo. Later courses will be held in Copenhagen, Denmark.

Tore Solheim solheim@odont.uio.no

From the National Societies

News from Iceland

The small group of dentists in Iceland interested in forensic odontology send their warmest wishes for a happy and prosperous new year to all IOFOS members.

Forensic dentistry does not have a long history in Iceland. It was not until 1989 that a formal DVI team or a committee was established under the auspices of the National Commissioner of the Icelandic Police. The committee consists of four members: one detective policeman, one forensic pathologist, one forensic odontologist and one from the National Commissioner of the Icelandic Police who serves as a chairman. Each committee member has two appointed substitutes. The minister of justice appoints the committee members. The forensic odontologists are appointed after proposals from the Faculty of Odontology of the University of Iceland.

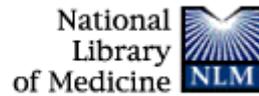
Formal education in forensic odontology was initiated at the Faculty of Odontology in 1991. Each student receives nine hours of lectures and some clinical demonstrations. Forensic odontologists in Iceland have very good cooperation and help from Nordic colleagues. In addition to forensic conventions, Nordic forensic odontologists meet alternately in the five countries. At these meetings, professional matters are presented and discussed, and furthermore social aspects are not neglected.

The Nordic forensic groups have combined forces to take part in lecturing at the “Personal Identification by Dental Methods” courses that have been presented every second year. Next course will be this year in Oslo, Norway, June 27th to July 2nd.

When this is written it is being planned that forensic odontologists will go to Phuket Island in Thailand to work with DVI groups from the other Nordic countries on identification of the flood disaster victims.

In Iceland days are getting slowly longer and we look forward to the spring and summer. Maybe this will be a good salmon fishing summer!!!
Svend Richter svend@isholf.is





Bitemark evidence.

Dorion RBJ et al.:629 pp, over 700 ill., ISBN 0-8247-5414-X, Marcel Dekker, Editor, New York, 2005

Numerous clinical disciplines in dental medicine have undergone tremendous developments in the recent past. Forensic odontology is one such discipline: it has achieved remarkable progress in some of its essential aspects such as identification procedures, bitemark analysis, age estimation and litigation. Forensic odontology is a branch of forensic medicine that brings oral and dental knowledge to the legal profession.

This highly didactic textbook is aimed at any professional interested in the application of legal measures in the field of bites. It is both an introduction to the science of bites and its legal implications and an analysis of this subject. In addition to the role that teeth play in mastication, elocution, vertical dimension, appearance and prehension of objects, teeth can also act as efficient attack and defense weapons. As early as in the 1950ies, historical anecdotes on this topic gave way to an increasing interest on the part of the legal authorities and to the progressive development of new investigation methods. In the USA, the number of documented cases in the legal system that involve bitemarks has been increasing exponentially since the 1970ies.

Bites can occur in crimes due to passion, in homicides, in rape cases and brawls. They can be inflicted by both the assailant and/or the victim. Bitemarks can also be found on objects or food left at the crime scene. In cases of abuse or neglect, acts of domestic violence may include not only gunshots, cuts, blows, but also bites. The victims may be children, adults or elderly persons. As a rule, an investigation is ordered by a judge.

Every investigation that involves a bitemark requires integrated, planned teamwork with a variety of experts such as healthcare workers, police officers, investigators, forensic scientists, odontologists and possibly others, depending on the particular needs of the case. A correct analysis is best performed on an injury that is rapidly recognized as a potential bitemark. Such an injury is described, photographed, DNA samples and traces of saliva are collected and the conformity of the injury with a bitemark is then assessed.

While an injury that is caused by a bite may evoke a portion of a denture, it is sometimes difficult to recognize because of an atypical appearance or presence of other types of injuries. Thus, biological samples must be collected even when the origin of the injury is uncertain. The biting dynamics which depend on the circumstances of the act and the elasticity of the targeted cutaneous tissues may cause significant distortions and different problems in the subsequent analysis. Such phenomena may also interfere with the recording of evidence (photography, impressions, transillumination etc) and be associated with further complications (elapsed time, artifacts, humidity, insects, etc.)

A successful analysis of a bite mark should provide answers to the following questions:

- Is the lesion truly a bite mark?
- Is the bite of human or animal origin?
- Has the bite been inflicted by an adult or a child?
- Do the characteristics of the bite allow offender profiling?

Photographic evidence should include a reference scale and rely on a reflex camera to avoid problems due to parallax. Infrared and ultraviolet photography can be used to reveal features beneath the tegument surface and to enhance surface details of the injury. Biological analysis of a bitemark should also be carried out. Thus, a sample of amylase must be collected for blood group determination through agglutinin analysis. More importantly, a DNA sample has to be collected. Finally, in some cases, a comparison of bacterial genotypes may also prove useful.

Because bitemarks are three-dimensional objects, molds made using a stable substance such as polyvinylsiloxane may be very useful. Several casts must be manufactured for securing evidence. Scanning electron microscopy of epoxy or acrylic casts may be a valuable additional method of investigation. Depending on their severity, bitemarks are classified as erythemas, contusions, dermabrasions, lacerations or tissue avulsions. Certain objects may leave traces that resemble bitemarks (coins, other round objects, etc.). The examination of the suspected perpetrator of the bite must include a dental and oral profile, his or her protrusion capacity and the dental status at the time of the incriminating event. Models, photographs and biological samples are also required in examinations of suspects.

The comparison between a bitemark and a suspect's denture may rely on a number of methods which have been evolving rapidly since the advent of digital imaging. While some three-dimensional techniques are very complex, the most widely used method consists in superimposing two-dimensional photographs and transparent overlays. This technique can be easily digitalized. The expert's report should include an objective assessment of the evidence and a complete interpretation of events that takes into account the possible limitations of the analysis performed. The report represents a precise and systematic documentation that is both didactic and informative. The use of specific terminology must be minimized, and clearly explained when it is unavoidable.

When testifying in court, the expert should be able to produce documents that are both simple and explicit and provide an oral testimony which is fully compliant with his or her knowledge of the case.

The proof of the origin of a bitemark relies on a sound and efficient methodology. Nevertheless, one's own experience and evidence found in the literature show that the tests that are conducted in reality remain subjective and are often disputed by different experts. It should be noted however that such disagreements occur in other forensic branches, such as dactyloscopy or analysis of footsteps. The expert must therefore be ready to provide solid arguments when presenting his or her own analysis of the case. Several chapters in the book cover the legal aspects that the expert may have to address in case of court appearance. Twenty one different authors contributed to the 30 chapters that make up this exceptional book. Their work is careful, rigorous, highly didactic and skillfully illustrated, thus meeting all the requirements needed to address the problem of bitemark identification, a particularly delicate subject in forensic dentistry.

Michel Perrier, Lausanne michel.perrier@bluewin.ch

Impression from the initial phase of the tsunami identifications in Phuket, Thailand

As the responsible forensic odontologist in the Norwegian Identification Commission I was contacted by the Head of the commission on Monday December, 27th. I was made aware of the possible commission to Thailand as it was an unknown number of Norwegian tourists who was reported missing after the tsunami in Thailand, especially in the Phuket area. On the 28th the commission met at the Central Criminal Police Bureau in Oslo and planned the expedition that would leave the next morning. Offer of assistance had been done through Interpol and accepted by Thai authorities.

We arrived in Phuket on Thursday the 30th and we spent the day installing equipment and planning the operation. We learned that we should work at a monastery called Bang Muoang about 2 hours drive north from Phuket and we took our equipment there. On Friday the 31st, we went there and several hundred bodies were lying on the ground wrapped in plastic. After getting permission to work we installed our selves together with the Danish Commission. There were no tables for the examination, nor water or electricity. Only an external description of the bodies was given and a dental examination performed on the ground without x-rays. No instruction for the dental examination or which forms to be used was received. That day the Nordic teams examined about 10 bodies.

On Saturday January 1st, we arrived late in the day due to delayed helicopter transport. Now we arranged coffins as examination tables and, even though too low, they improved the condition. This day a number of Thai dentists arrived and should take digital x-rays. We only managed to examine about 15 bodies that day. On January the 2nd a Swedish team arrived and we arrived not so delayed at the site. The Nordic teams this day managed to examine over 40 bodies. Now the Thai dentists said they would not come back the next day as they were ordered to move to another temple.



When we arrived the next day January the 3rd the Thai were in the process of moving the bodies and the examination to another place Jan Jao, about 10 km further north. We could not work any more that day and moved our equipment there as well. The evening before our Head had not been informed about this movement. At Jan Jao we were not allowed to work that day or the next. So we only had to wait. In the meantime 2 other dentists in our ID-commission arrived as well as 6 military dentists. We were thus well prepared regarding the number of dentists. The trouble was places to work and long transportation as hotels were not available in this area.

On Wednesday the January the 5th we were ready to start working. Now the morgue was administered by the Australians and to our astonishment only 1 to 2 tables were available at a time. As the Nordic teams could at that stage at least set up 8 examining teams, this was a

great underestimation of the need and the personell available. We did our best and also helped with the dental x-rays that were taken. Not many bodies were examined.

The next day reorganization made it possible for 3 teams to work at a time. This helped but was still an underestimation of our capacity. About 40 bodies were examined that day. However with a total of about 3000 bodies here and about 1000 from our previous site this was felt ridiculous, especially as the manpower was there. Reorganization again on Friday January the 7th did not at all improve the performance. We were promised another place for the examinations, but nothing happened. Saturday January 8th was my last day and we and the other Nordic experts worked evening shift in an attempt to be able to examine more bodies. We started to become more familiar with the system and everything went smoother. Thus we managed about 35 bodies on that shift.

Comments

Disorganization and confusion in such an unusual situation was to be expected. We know nothing about the Thai preparations for identification work. We heard that the direction of the work had been given to the Australians, but I cannot believe that is the whole truth. I assume that the majority of the dead were Thai. With so many nationalities present to help, some with and some without dentists, it was to be expected a lot of discussion and disagreement about the work. That only increased the confusion. In a large disaster like this it is of the utmost importance that all follow the system decided upon. To me it is difficult to understand that the capacity for examinations was all too small for such an extended time. It would only have been to calculate from the bodies the total time for examinations and then calculate the total number of teams necessary. Then a plastic stadium of necessary size might have been available or could have been erected for the purpose. I am convinced that it would be possible to find the number of teams necessary in Thailand and abroad.

The long distance between the hotel and the working area caused loss of valuable working time. We feel our time could have been used better. As bodies were transported anyway and many was expected to be sent abroad it might have been better to locate the examinations near the airport, thus increasing the effective work of each expert with maybe 3 hours a day. One good effect was that the International teams and the Thais finally agreed upon using the Interpol system and the Interpol forms in the work. As a consequence the Interpol DVI computer program which is now upgraded in a new version was natural to use. I hope this will set an international standard. It is however clear that many details in this system could be improved, but it is the best we have today. Based on experiences like this, the need for improvements may become obvious.

When we decided to use the Interpol system it would have saved a lot of time to use the computer abbreviations instead of writing all in full text for the dental descriptions. Also the requirement that the odontogram should be filled in was in my mind wasted work as the computer cannot see it and also the DVI program fills in the odontogram automatically. In fact it is not necessary at all for the computer, nor for the final comparison as one has to read the text tooth for tooth. In my opinion the use of odontogram is only necessary where special anatomical features are found which are difficult to describe.

I hope that the large number of victims in the tsunami may lead to improved techniques for quicker and safer identification in the future. Important will also be the experience of cooperation between the many different national identification teams.

Tore Solheim solheim@odont.uio.no

Ferdinand Stroem IOFOS Award

The Ferdinand Stroem Award was instituted by the IOFOS general assembly in 2001. It is named after a Norwegian dentist, Ferdinand Strøm (1904-1990), who was one of the international pioneers in forensic odontology. The family has kindly given their permission to IOFOS to name the scientific prize after him.

Purpose

1. The purpose of the award is to encourage young people to carry out research in forensic odontology
2. It should allow young scientists to present their research in forensic odontology at a forensic meeting
3. It should help to cover the registration fee up to € 500 at an international meeting.
4. The award is to be presented every third year in connection with the the IAFS-meeting

Applicants

5. The applicant must be a registered dentist in his/her own country and younger than 40 years
6. The scientific work has to be within the with the field of forensic odontology

Application

7. The deadline for the application is the deadline for the submission of the abstract to the triennial IAFS meeting
8. A copy of the abstract submission should be sent to the Committee of IOFOS.

Scientific Committee

9. The council of the IOFOS shall appoint three people (forensic odontologists) which constitute an ad hoc scientific committee who will make recommendations to the council.
10. The committee shall evaluate the presentation's contribution to forensic odontology
11. The committee shall judge the scientific content, the methods, results obtained and the discussion.

Course in Forensic Odontology

41st FORENSIC DENTAL IDENTIFICATION AND EMERGING TECHNOLOGIES

March 21 - 25, 2005

Hyatt Regency Hotel, Bethesda, Maryland

(Lectures and Mini Workshops)

Course Directors:

Robert D. Foss, CAPT, DC, USN

Christopher G. Fielding, LTC (P), DC, USA

This 5-day course is designed to include both lecture and participatory workshops. The focus of the course is to expose the experienced forensic scientist, and to introduce the novice, to state-of-the-art techniques used for forensic endeavors. There will be speakers from diverse organizations such as the Federal Bureau of Investigation, U.S.Army, National Museum of Health and Medicine, and various universities across the nation. The laboratory sessions incorporate digital radiology and photographic capture and computer databases, with a mock

mass disaster identification exercise. Other laboratories include bitemark analysis, skeletal anthropology, and radiographic age assessment. The primary emphasis of the course is forensic odontology; however, overviews of the allied disciplines are provided to complete the attendees' knowledge base. At the completion of the course, participants should be able to perform forensic dental identification of human remains. They should be able to participate and be a valuable asset to an identification team. Furthermore, they will gain an awareness of the myriad of agencies and scientific disciplines in the arena of forensics.

The tuition is \$900. Active-duty U.S. military, Department of Defense civilians, full-time permanent Department of Veterans Affairs employees (not residents or fellows), and commissioned officers of the Public Health Service with authorized approval have a registration fee of \$600.

For further information please contact: Course Coordinator:
Stephen Huntington, Department of Medical Education, Armed Forces Institute of Pathology, Washington, DC 20306-6000, Tel: (202) 782-2637, Toll-Free
Tel: (800) 577-3749 (within the US), Fax: (202) 782-5020, Toll-Free Fax:
(800) 441-0094, E-mail: sutton@afip.osd.mil, VIEW COURSE & REGISTER ONLINE:
<<http://www.afip.org/Departments/edu/upcoming.htm>
><http://www.afip.org/Departments/edu/upcoming.htm>

Ms. René M. Sutton, Marketing Specialist
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Department of Medical Education
6900 Georgia Avenue, NW, Washington, DC 20306-6000
Tel: (202)782-2634 FAX: (202) 782-5020

6th International Course in Forensic Odontology

Personal Identification by Dental Methods

June 27 to July 2 - 2005

We want to invite you especially to this course in identification. It has long traditions with the first course being organized in Copenhagen 1979. It is supported by the Nordic Organization for Forensic Odonto-Stomatology and by the International Organization for Forensic Odonto-Stomatology (IOFOS). The course is run by teachers in forensic odontology from all Nordic countries.

If you are interested please contact:

Professor Tore Solheim, Department of Pathology and Forensic Odontology, University of Oslo,
PO Box 1109 Blindern, N-0317 Oslo, Norway.
Telephone +47-22852359, Fax: +47-22852351, E-mail: solheim@odont.uio.no

APPLICATION FORM

6th INTERNATIONAL COURSE IN FORENSIC ODONTOLOGY
PERSONAL IDENTIFICATION BY DENTAL METHODS

OSLO, NORWAY, JUNE 27 – JULY 2, 2005

Family
name:.....
First
name:.....
Full
address:.....
.....

Phone, office:.....
Home:.....

Fax:.....

E-mail:.....

University affiliation, if
any:.....

Education:.....
.....

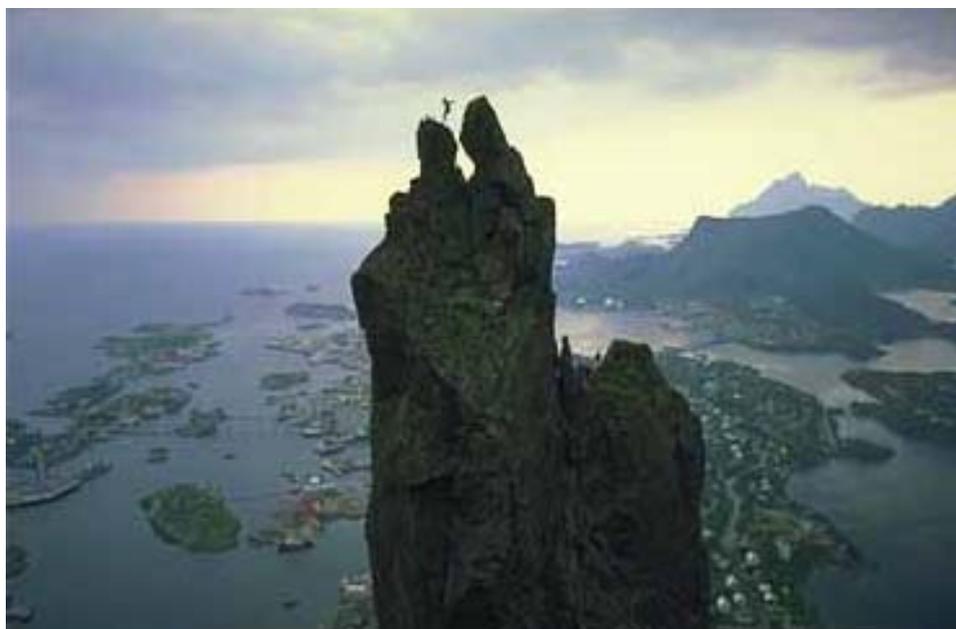
Signature:.....
To be sent to:

Professor Tore Solheim, Department of Pathology and Forensic Odontology,
Dental Faculty, University of Oslo, PO Box 1109 Blindern,
N-0317 Oslo, Norway. Fax: +47-22852351 E-mail: Tore.Solheim@odont.uio.no

The course will not be arranged if we have less than 10 applicants, and we will limit the participation to 20.
You will be notified as soon after March the 15.th as possible and we expect you to pay the course as soon as possible directly to the bank or by card. Your participation is only accepted after full payment is received.

Coming Events

21-25 March 2005	41 st Forensic Dental Identification and emerging technologies, Bethesda Maryland, USA	< www.afip.org/Departments/edu/upcoming.htm Contact: Ms Rene M. Sutton Tel (202) 782-2634
22 February 2005	ASFO meeting in New Orleans, USA.	Contact: susankrivera@aol.com
27 June – 3 July 2005	IOFOS Course in Identification, one week in Oslo, Norway.	Contact: solheim@odont.uio.no
21 – 26 August 2005	IAFS (International Association of Forensic Sciences) 17 th meeting in Hong Kong	Website: www.iafs2005.com E-mail: iafs2005@govtlab.gov.hk Carl Leung carlleung@graduate.hku.hk
20 – 22 October 2005	IDEALS meeting in Florence, Italy	Contact: pinchi@unifi.it
15 – 16 May 2006	in Leuven, Belgium "The international symposium on Craniofacial Reconstruction"	
17 – 20 May 2006	in Leuven, Belgium "The international symposium on Forensic Odontology"	WWW.MFO.BE



Let's look for each other somewhere!