
ISFRI

International Society of
Forensic Radiology and Imaging



University of
Zurich^{UZH}

ISFRI CONGRESS 2012

1st Congress of the International Society of
Forensic Radiology and Imaging
May 14-15, 2012, Zurich, Switzerland



WELCOME ADDRESS

Dear friends and colleagues,

On behalf of the ISFRI Board, I am pleased to welcome you to Zurich, Switzerland for the 1st congress and annual meeting of the International Society of Forensic Radiology and Imaging.

Over the last decade, forensic imaging underwent enormous expansion and is becoming a distinct sub-specialty of forensic medicine and radiology. In many institutes across the world, post-mortem imaging prior to autopsy is now standard practice. The increasing use of imaging technologies raises fundamental questions regarding quality standards, education and best practice in the field of forensic radiology and imaging.

The ISFRI Congress is an exclusive forum for international experts to share and compare their experience in forensic radiology. As participant of this first congress, you will have the advantage of discussing and debating these topics with other leading world experts and actively shape the future of forensic radiology.

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In addition, all participants will receive ISFRI membership status and will be regarded as Founding Members of the ISFRI. There will be an official ceremony during the Gala Dinner. We hope you will enjoy this inaugural ISFRI Congress.

Sincerely
Michael Thali
Chairman of the ISFRI

TARGET AUDIENCE

The ISFRI Congress is aimed at all persons who are professionally involved in forensic radiology and imaging, including forensic and general pathologists, medical examiners and coroners, autopsy technicians, radiologists, radiographers and radiologic technologists, medical & forensic photographers, MR physicists, surveying specialists, and computer scientists.

OBJECTIVE

The objective of the ISFRI Congress is to unite professionals with expertise in the field of forensic radiology and imaging from all over the world and to create a platform for communication and cooperation in order to promote research, education, best practice, and quality standards in forensic radiology and associated imaging sciences.

CONGRESS PROGRAM

MONDAY, MAY 14, 2012

8:00 AM REGISTRATION

9:00 AM PLENARY SESSION I

9:00 AM Welcome and Introduction Michael Thali

9:20 AM Keynote Lecture - A personalized history of Forensic Radiology, before Virtopsy Gil Brogdon

9:50 AM Post-mortem CT findings: causes of death, post-mortem changes, and CPR-related changes Seiji Shiotani

10:10 AM What is an autopsy and how does post-mortem imaging change our understanding? Chris O'Donnell

10:30 AM COFFEE BREAK

11:00 AM PLENARY SESSION II

11:00 AM Post-mortem imaging as an alternative to autopsy in the diagnosis of adult deaths Ian Roberts

11:20 AM Clinical forensic imaging: forensic imaging of the living Kathrin Yen

11:40 AM Post-mortem CT: perceptions, and criminal justice requirements Guy Ruttly

12:00 PM Cutting edge visualization techniques in forensic radiology Anders Persson

12:20 PM LUNCH BREAK

2:00 PM PLENARY SESSION III

2:00 PM Keynote Lecture - Virtopsy in court! Richard Dirnhofer

2:30 PM The role of CT in detection of abuse and neglect of the elderly Barry Daly

2:50 PM Post-mortem MRI in the foetus, infant and child Sudhin Thayyil

3:10 PM TWGPAM: State-of-the-art of post-mortem CT-angiography Silke Grabherr

3:30 PM COFFEE BREAK

4:00 PM ISFRI ANNUAL MEETING

1st Plenary Meeting of the ISFRI ISFRI Founder Board

6:00 PM END OF SESSION

7:00 PM CONGRESS DINNER

TUESDAY, MAY 15, 2012

9:00 AM PLENARY SESSION IV

9:00 AM Keynote Lecture - Forensic radiologic imaging: when Radiology and Forensic Medicine meet Peter Vock

9:30 AM Medicolegal death investigation in the US: barriers to the implementation of transformative imaging technologies Kurt Nolte

9:50 AM Cross-sectional imaging in anthropology: state-of-the-art Fabrice Dedouit

10:10 AM The Maryland Forensic Imaging Experience: Benefits of Collaboration between an Academic Radiology Department and a U.S. Medical Examiner System David Fowler

10:30 AM COFFEE BREAK

11:00 AM PLENARY SESSION V

11:00 AM The role of CT in disaster victim identification (DVI) Guy Rutty

11:20 AM Post-mortem cardiac MRI Christian Jackowski

11:40 AM Surface scanning in forensic medicine Robert Breitbeck

12:00 PM Virtangio - sponsored by Fumedica Promotional Presentation

12:10 PM LUNCH BREAK

1:30 PM

SCIENTIFIC SESSION

Cadaveric body weight estimation from regression analysis of corpse length and anterior abdominal subcutaneous fat thickness using Computed Tomography

Abdul Rashid
Saiful Nizam

Does enzymatical maceration change the morphology of bone structures? - A computed tomography evaluation study

Patrick Laberke

Determination of PMI using non-invasive MRI measurement of the ADC

Chandra Gerrard

Can post mortem CT reliably distinguish between drowning and non-drowning asphyxiation?

A prospective study

Astrid Van
Hoyweghen

Fatal hypothermia effect on lung evaluating using postmortem CT imaging

Hideki Hyodoh

The use of skin breach markers in plain radiography of live gunshot patients

Brandon Bertolli

Differentiation of bodypacks by computed tomography: CT attenuation values at different tube voltage levels and the dual-energy index

Simon Blum

K-edge Imaging in Post-Mortem CTA: Potential of Combined Usage of Iodine and Gadolinium in Post-Mortem Dual-Energy CT Angiography (PmDECTA)

Steffen Ross

Use of postmortem CT angiography to detect causes of gastrointestinal hemorrhage

Sarah Parsons

3:00 PM

CLOSING SESSION

Summary, discussion and outlook

ISFRI Founder Board

4:00 PM

END OF CONGRESS

KEYNOTE SPEAKERS

Gil Brogdon, MD, Professor Emeritus from the University of South Alabama (USA) is the foremost forensic radiologist of his time. He became involved in forensic radiology nearly 50 years ago at the while chief, Division of Diagnostic Radiology at Johns Hopkins. His commitment to the field continued during his tenure as professor and chair of the Department of Radiology at the University of New Mexico and later at the University of South Alabama. He is the editor of two benchmark textbooks on forensic radiology: *Forensic Radiology* (1998 1st ed., 2010 2nd ed.), and *A Radiological Atlas of Abuse, Torture, Terrorism and Inflicted Trauma* (2002) and has co-authored over 360 publications during the last 59 years.

Richard Dirnhofer, MD, Professor Emeritus and former Chair of the Institute of Forensic Medicine at the University of Bern (Switzerland), is one of the founders of the Virtopsy Project and the Virtopsy Foundation. He has been active in Forensic Medicine since the late 1960ies. He was a full professor at the Universities of Basel and Bern and visiting professor at the University in Salzburg. It was during his time as Chair of the Institute of Forensic Medicine in Bern (Switzerland) that he initiated the Virtopsy Project, a long term research project promoting the collaboration of Radiology and Forensic Medicine (www.virtopsy.com). He is editor of the textbook on virtual autopsy *The Virtopsy Approach* (2009) and has co-authored multiple papers on forensic radiology and virtual autopsy.

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Peter Vock, MD, Professor Emeritus and former Chair of the Institute of Diagnostic, Interventional, and Pediatric Radiology at the University of Bern (Switzerland), is one of the founders of the Virtopsy Project. He has been professionally active in Radiology for over 35 years. During his career he developed spiral/helical CT together with Willy Kalender (Erlangen, Germany), a method that has revolutionized the use of computed tomography (CT) in diagnostic radiology. He became involved in forensic radiology in the early 2000s. He is editor of the textbook on virtual autopsy *The Virtopsy Approach* (2009) and has co-authored nearly 100 papers on radiology, with a focus on radiation protection, chest and forensic radiology.

Barry Daly, MD, Professor of Diagnostic Radiology, Vice Chairman for Research, and Director of Abdominal Imaging at the University of Maryland (USA), is a board certified radiologist. He has been active in Forensic Radiology for more than half a decade and has presented his research on virtual autopsies at annual meetings of the RSNA and the AAFS and NAME Forensic conferences. He has co-authored the fundamental report on the role of post-mortem computed tomography in the detection of abuse and neglect of the elderly.

Fabrice Dedouit, MD, PhD, from the Departments of Radiology and Forensic Medicine in Toulouse (France) and the Laboratory for Molecular Anthropology and Image Synthesis is a board certified radiologist and forensic pathologist. He has been involved in forensic and anthropologic imaging for over five years and has published nearly 30 articles and co-authored two book chapters in Brogdon's Forensic Radiology (2010), including the chapter on modern cross-sectional imaging in anthropology. His research focuses on forensic anthropology.

David R Fowler, MD, Professor of Forensic Pathology is Chief Medical Examiner for the State of Maryland and medical consultant to the U.S. Department of the Navy. He has been active in Forensic Radiology for more than half a decade and has presented his research on virtual autopsies at annual meetings of the RSNA. Dr. Fowler has published several articles on forensic pathology and forensic imaging. He has co-authored the fundamental report on the role of post-mortem computed tomography in the detection of abuse and neglect of the elderly.

Silke Grabherr, MD, is a forensic pathologist at the Center of Legal Medicine of the University of Lausanne (Switzerland). She was a research fellow in Prof. Dirnhofer's Virtopsy team at the Institute of Forensic Medicine in Bern (Switzerland) and has been committed to Forensic Imaging for nearly 10 years. She is an expert on post-mortem CT-angiography and has published several research articles on this subject. She has co-authored several chapters of The Virtopsy Approach (2009), including the chapter on post-mortem angiography. She has developed a patented contrast medium for post-mortem angiographies. In addition to her work on post-mortem angiography she is very active in the education of forensic radiology technicians.

Christian Jackowski, MD, EMBA, is a forensic pathologist and researcher at the Institute of Forensic Medicine of the University of Zurich (Switzerland). He was a research fellow in Prof. Dirnhofer's Virtopsy team at the Institute of Forensic Medicine in Bern (Switzerland) and has been committed to Forensic Imaging for nearly 10 years. He is the world leading expert on post-mortem cardiac magnetic resonance imaging and has published nearly 50 articles and co-authored multiple chapters of The Virtopsy Approach (2009), including the chapters on cardiac MR and disaster victim identification (DVI).

Kurt Nolte, MD, Professor of Pathology, is Director of the Center for Forensic Imaging and Assistant Chief Medical Investigator for Research for the Office of the Medical Investigator at the University of New Mexico, Albuquerque (USA). He is also the Executive Vice President of the National Association of Medical Examiners (NAME). He is a forensic pathologist advocate of post-mortem imaging and a key player in forensic radiology in the USA.

Chris O'Donnell, MD, FRANZCR, is a forensic radiologist at the Victorian Institute of Forensic Medicine (VIFM) in Melbourne (Australia). He is the most prominent Australian expert on Forensic Radiology. He was actively involved in the disaster victim identification (DVI) process in the aftermath of the Victorian Bushfires in 2009. In his role as consulting radiologist at the VIFM he supports forensic pathologists involved in the interpretation of forensic radiology. He has gained enormous experience in post-mortem CT over the last seven years at VIFM, where more than 30,000 CT examinations have been performed. He has authored several articles on post-mortem CT and provides expert evidence on post-mortem imaging to the Victorian State Coroner.

Anders Persson, MD, PhD, is Director of the Center for Medical Image Science and Visualization (CMIV), Linköping University (Sweden). The Center for Medical Image Science and Visualization (CMIV) is an internationally recognized center for medical image science and visualization. Anders Persson was involved in the development of the Virtual Autopsy Table, a medical visualization tool that allows to explore the inside of a human body using a gesture based interface. He is the co-author of multiple scientific articles and has written a chapter of *The Virtopsy Approach* (2009).

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Ian Roberts, MD, is a pathologist at the Department of Cellular Pathology at the John Radcliffe Hospital in Oxford (UK). He has been involved in Forensic Radiology for over a decade. He was a pioneer in the use of post-mortem magnetic resonance imaging in the UK and has recently published a cornerstone article on the validation of post-mortem imaging as an alternative to conventional autopsy. He is a recognized expert on post-mortem imaging in adults.

Guy N Rutty, MD, is Professor of Forensic Pathology and Chief Forensic Pathologist at the University of Leicester (UK). He has been involved in forensic radiology for more than a decade and is an advocator of using mobile CT for Disaster Victim Identification (DVI) in the UK. Prof. Rutty is an advisor to the Home Office in relation to contaminated mass fatalities. He holds the Foundation Chair in Forensic Pathology at the University of Leicester and is the founder Editor-in-Chief of the peer-reviewed *Journal Forensic Science, Medicine and Pathology*. He has published 200 publications, edited six textbooks and assisted with the writing of crime fictional novels. Prof. Rutty was awarded the Member of the Order of the British Empire (MBE).

Seiji Shiotani, MD, is a radiologist at the department of Radiology, Tsukuba (Japan). He is one of the most prominent forensic radiologists in Japan and has published several fundamental papers on post-mortem computed tomography (CT). Overall, he has co-authored more than 20 articles on post-mortem CT and MR.

Sudhin Thayyil, MD, PhD, is a Clinical Senior Lecturer and Consultant Neonatologist at the University College London (UK). His research is focused on cerebral magnetic resonance biomarkers in newborns, and post-mortem MR imaging. He has led a large multi-center prospective study – MaRIAS (Magnetic Resonance Autopsy Imaging Study) on post-mortem magnetic resonance imaging in fetuses, newborns and children in the UK, and has published multiple papers on the subject.

Kathrin Yen, MD, is Professor and Chair of the Institute of Forensic Medicine at the University of Heidelberg (Germany). She was once a research fellow in Prof. Dirnhofer's Virtopsy team at the Institute of Forensic Medicine in Bern (Switzerland). Later, she founded and chaired the Ludwig Boltzmann Institute for Clinical Forensic Imaging in Graz, Austria, a research facility dedicated to forensic imaging in the living. She has published several articles on clinical forensic imaging and is an expert in this field.

ISFRI FOUNDER BOARD

Michael J Thali, MD, EMBA, current Professor and Chair of the Institute of Forensic Medicine at the University of Zurich (Switzerland) and former chair of the Institute of Forensic Medicine at the University of Bern (Switzerland), is a co-founder of the Virtopsy Project and active advocator of virtual autopsy. He was a resident in radiology at the Institute of Radiology at the University of Bern (Switzerland) and completed a fellowship at the Armed Forces Institute of Pathology, Washington DC (USA). He is editor of the textbook on virtual autopsy *The Virtopsy Approach* (2009) and the latest edition of Brogdon's *Forensic Radiology* (2010). He has co-authored over 150 papers on forensic radiology and virtual autopsy. Michael Thali is the chairman of the ISFRI Founder Board and the contact person for issues related to forensic pathology.

Mark Viner is a radiographer and fellow of Cranfield University Forensic Institute. He has been active in forensic imaging for almost 30 years and has a wide experience in the field. Mark is chief executive of the Inforce Foundation and a senior manager at St. Bartholomew's and The Royal London Hospitals. He has worked as forensic radiography consultant in Bosnia, Kosovo, Croatia, Sierra Leone, and the Irish Republic as well as the United Kingdom. He is a Fellow and Gold Medalist of the Society & College of Radiographers and was awarded a Winston Churchill Fellowship in 2005. He is a founder member and first chair of the International Association of Forensic Radiographers and has contributed to a number of radiology chapters to forensic textbooks. He is editor of the current edition of Brogdon's *Forensic Radiology* (2010). Mark Viner is a Member of the ISFRI Founder Board and Liaison Officer between the ISFRI and the International Association of Forensic Radiographers (IAFR). He is the contact person for issues related to radiography.

Robert Breitbeck, Dipl.-Ing. (FH), is a surveying engineer at the Institute of Forensic Medicine at the University of Zurich (Switzerland). He graduated from the University of Applied Sciences in Dresden (Germany) and is an expert in 3D-photogrammetry and optical surface scanning. He was a member of the Virtopsy team at the University of Bern (Switzerland). His areas of interest include computer aided 3D reconstruction, visualization and animation. Robert Breitbeck is the treasurer of the ISFRI Founder Board and the contact person for issues related to forensic surveying.

Gary M Hatch, MD, is a general radiologist, assistant director of the Radiology-Pathology Center for Forensic Imaging at the University of New Mexico Office of the Medical Examiner and assistant professor in the departments of radiology and pathology at the University of New Mexico (USA). He is a former member of the Virtopsy project at the University of Bern (Switzerland). Dr. Hatch has been academically active in the field of forensic radiology, publishing numerous articles, co-authoring a chapter in Brogdon's second edition of Forensic Radiology (2010) and presenting multiple lectures at the American Academy of Forensic Science annual meeting. Gary Hatch is a Member of the ISFRI Founder Board and the contact person for issues related to forensic radiology.

Thomas D Ruder, MD, is a radiologist at the Institute of Forensic Medicine at the University of Zurich (Switzerland) and a clinical radiologist at the University Hospital of Bern (Switzerland). He was a doctoral student in Prof. Dirnhofers Virtopsy team at the Institute of Forensic Medicine in Bern (Switzerland) and a resident in radiology under Prof. Vock at the Institute of Diagnostic, Interventional, and Pediatric Radiology at the University of Bern (Switzerland). Thomas Ruder has published numerous articles on forensic radiology, co-authored a chapter in Brogdon's Forensic Radiology (2010) and published two volumes of poetry. Thomas Ruder is the secretary of the ISFRI Founder Board and coordinator of the current ISFRI Congress.

GENERAL INFORMATION

GENERAL ADMISSION FEES

The participation fee amounts to CHF 550 for registrations until March 15, 2012 and CHF 650 for registrations after this date.

THE GENERAL ADMISSION FEE INCLUDES:

- Access to all sessions of the 1st ISFRI Congress 2012 (May 14, & 15, 2012)
- Coffee breaks and lunches on May 14, & 15, 2012
- 1st annual ISFRI membership fee
- 1st annual subscription of the Journal of Forensic Radiology and Imaging (JoFRI)

REGISTRATION AND PAYMENT

The congress is fully booked.
Registration has been closed.

CANCELLATION OF REGISTRATION

Cancellation fees for registered participants are CHF 50 up to April 15, 2012 and the full registration fee after this date.

Cancellations have to be made by E-mail to:
isfri2012@viva-management.com

or by regular mail to:

ISFRI, c/o Viva Management GmbH, Kramgasse 16,
CH-3011 Bern, Switzerland.

All refunds will be processed through credit card refund or bank transfer only.

CONGRESS DINNER MONDAY EVENING, MAY 14, 2012

Spend a pleasant evening together with friends and colleagues at the congress dinner on Monday, May 14, 2012. Please make sure to reserve your seat at the dinner during online registration process (reservation mandatory). The conference dinner will take place at the congress venue (Hotel Renaissance) and is generously sponsored by Fumedica AG, Switzerland.

Accompanying persons are welcome to join the dinner (CHF 120 per accompanying person, reservation mandatory).

ACCOMMODATION

The congress organizers have reserved rooms at different hotels in Zurich for the congress attendees. These hotels provide a wide variety of rates and amenities, all within close proximity to the congress venue, the Hotel Renaissance, Thurgauerstrasse 101, Zurich. Please book your accommodation as soon as possible, latest until April 15, 2012, as availability of rooms is limited.

RESERVATION POLICIES

Please note, that by registering for your hotel in Zurich you are committing yourself to a confirmed reservation. The hotel fees are directly charged together with your congress fee during online registration. In case of cancellation or any reservation changes, the same cancellation policy is applicable as for the general admission fees.

The congress organizer offers the hotel reservation as a service to its participants and can in no way be made liable for any hotel service and cancellation costs.

CANCELLATION COSTS INSURANCE

In collaboration with the insurance company Elvia (by AGA International S.A., Paris, Wallisellen, Switzerland) the congress organizers offer a cancellation costs insurance (4% of booked congress & hotel fees, only valid for items booked through the official ISFRI Congress registration website), which covers your cancellation costs for any unseen circumstances (according to the General Terms and Conditions of Insurance Cancellations Costs rent, courses, seminar (please visit registration page for details)).

GENERAL INQUIRIES

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CONGRESS VENUE

Renaissance Zurich Hotel, Thurgauerstrasse 101,
8152 Zürich-Glattpark, Switzerland

ARRIVING BY PLANE:

FROM ZÜRICH AIRPORT:

Tram no. 10, direction 'Zürich, Bahnhofplatz/HB' (stop: 'Glattpark')

Travel time: 9 minutes

ARRIVING BY TRAIN:

FROM ZÜRICH SBB RAILWAY STATION:

Tram no. 10, direction 'Zürich Flughafen' (stop 'Glattpark')

Travel time: 20 minutes

ARRIVING BY CAR:

Direction, 'Zürich Glattbrugg'. Take exit, 'Wallisellen Opfikon'. Turn right after exit and follow hotel signs.

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