The XXII International Conference
of the European Federation
for Medical Informatics

FINAL PROGRAMME

EFMI
European Federation for
Medical Informatics

BHSMI
Society for Medical Informatics of
Bosnia and Herzegovina

MIE
SARAJEVO
09

bridge over troubled water

MIE '09 Sarajevo

22nd **INTERNATIONAL CONGRESS OF THE EUROPEAN FEDERATION FOR MEDICAL INFORMATICS**

30.8. - 02.09.

2009 MEDICAL INFORMATICS IN A UNITED AND HEALTHY EUROPE

LOCATION: Sarajevo, Bosnia and Herzegovina

WWW.MIE2009.ORG

European Federation for Medical Informatics

Society for Medical Informatics of Bosnia and Herzegovina

University of Sarajevo

WELCOME **LETTER**

Jacob Hofdijk, PhD,
President of the European
Federation for Medical
Informatics

Dear participants,

On behalf of the European Federation for Medical Informatics (EFMI) I welcome you to the 22nd International Medical Informatics Conference–MIE2009, and as visitor of Sarajevo, Bosnia & Herzegovina from August 30th to September 2nd, 2009.

Our first contact with the organizer of this MIE conference dates back to the MIE organized in Lisbon in 1994. Prof Izet Masic managed to attend this conference after a " Great Escape" kind of trip from the besieged Sarajevo. After his long and persistent efforts Izet managed to get the final selection of Sarajevo as the MIE host in 2009. The city, which endured the longest siege in modern history. It is with great pride that the MIE2009 conference takes place in the year of the 60th anniversary of the University of Sarajevo. The character of Bosnia & Herzegovina is best illustrated by the fact that during the siege the education and research at the university went on unbroken. It is an honor and privilege to have the MIE2009 conference organized by Prof Izet Masic, the token within EFMI of this brave country. The bridge over the river, over the Miljacka River, is the symbol for our conference, bridging between so many in a so historical rich city, which is now reviving. During the long process of preparation many bridges over trouble water had to be crossed. The organization managed to attract many to participate in MIE2009, like sponsors, ISfTeH, the EUROREC and the EU. So MIE2009 will become the centre for Health IT during these special days. The crossing of the bridge will always be remembered as a landmark in the breakthrough of better use of medical informatics in a united and healthy Europe.

Like all MIE conferences since 1976 MIE2009 has peer reviewed proceedings published in the IOS series and indexed in MEDLINE. The Program and the Proceedings have been prepared in a tedious process with many reviewers, the Scientific Program Committee and most of all by the dedicated work of the Chair Prof Klaus Peter Adlassnig, his Co chairs Ass. Prof Bernd Blobel and Prof John Mantas and last but not least Andrea Rappelsberger, the indispensable one behind the scenes.

MIE2009 will offer the platform to many scientists, researchers, students, users like health care providers and consumers/ patients present and discuss the latest developments in this domain. The content will be the stimulus to intensify the human network of people involved in health care so to best serve the real hopeful semantic interoperability.

This Wordle Image shows in one image the focus of the MIE conference. Be our guest and join the friendship of the EFMI network, feel like an EFMI Member!

Jacob Hofdijk, PhD
President of the European Federation for Medical Informatics

WELCOME **LETTER**

Dear colleagues,

The MIE conference 2009 on Medical Informatics being held in Sarajevo, Bosnia and Herzegovina, from 30 August to 2 September 2009, is the European's leading forum for presenting the results of current scientific work in health-informatics processes, systems, and technologies. Achievements in these areas will be introduced to an international audience. On behalf of the Scientific Program Committee (SPC), I would like to invite you to attend this outstanding scientific event!

Following this invitation, you will be rewarded by an interesting and broadly-balanced scientific program. It includes nine keynote lectures from eminent scientists coming from Europe and overseas, 40 parallel scientific sessions with 171 oral presentations of full and student papers, 16 selected workshops, a software demonstration session, two poster sessions exhibiting 21 posters, an industrial round table discussion, five full- and half-day educational tutorials, the EuroRec topic conference, and a number of special medical-informatics-related European institutional and organizational events and meetings.

What topics will be awaiting you? The conference has several topic tracks to provide you with a "gap-free" line of presentations that are in the core of your professional interest. National eHealth, health information and electronic record systems, ontologies and standards, and interoperability is one major track. Another is concerned with social networks and the web, home care and public health, telemedicine, devices and sensors, quality assurance, and disease management. The third track was opened for topics around patient safety, adverse events, decision support, clinical guidelines and protocols, and privacy and security. And, last but not least, the fourth track includes presentations on topics such as bioinformatics, again decision support, modeling and simulation, imaging and visualization, and learning and education.

As a major event for science, medicine, and technology, the conference provides a comprehensive overview and in-depth, first-hand information on new developments, advanced systems and technologies, and current and future applications.

With the compiled Scientific Program, we would like to give you information on the conference and invite you to join us in Sarajevo.

I look forward to seeing you there!

... and may I share with you one of my favorite personal mottos: *Good health is the first and greatest of all blessings and of all liberties*, paraphrasing Lord Chesterfield, letter to his son on 12 March 1768.

Prof Klaus-Peter Adlassnig, PhD, Chair of SPC of MIE 2009

Prof Klaus-Peter Adlassnig, PhD, Chair of SPC of MIE 2009

WELCOME **LETTER**

Prof Izet Masic, PhD, MD
Chair of LOC of
MIE 2009

Dear Colleagues and Friends,

The candidature of the Society of Medical Informatics of B&H to organize the MIE 2009 Conference in Sarajevo was accepted at the EFMI Council meeting held in Sant Malo (France) in 2003. The motto decided upon at this meeting was Medical Informatics in a United and Healthy Europe. Based on this motto, attendees were invited to join the Conference. What were the reasons for this motto? The first reason was the fact that Bosnia-Herzegovina, the central country of the region, has become a synonym for a bridge between the Eastern and the Western world.

One needs to take a new look at issues like development, production, and consumption, ranking of human values, providing support for research, implementing new technologies and innovations in all sectors of education and training, assuring support for information on all matters pertaining to life, promoting a high level of culture, and eliminating elements that could endanger Man's right to a life of high quality and good health.

Mankind has lacked the economic and scientific potential to supervise public health and health promotion in some countries. This is changing now. The expansion of Man's technological power has raised the need to take ethical responsibility for the preservation and promotion of human health. Quality health information derived from medical data is a necessity for any health system in Europe or anywhere else in the world. Health information should enable Man to implement the philosophical principle: "Every single event that happens in the world is influenced by prior events and equally influences future events". Health informatics viewed as the sum of theoretical and practical biomedical disciplines in the past, present, and future should be based on the preservation and maximum utilisation of existing health resources, particularly in underdeveloped countries and in those undergoing transition. This view of the world needs to replace the current mechanistically-oriented view of the world, which is primarily based on growth and insufficiently addresses important aspects of Man's spiritual development. The perhaps entropic view of the world violates the most precious elements of the environment we live in, our culture, and our biological survival.

The motto of MIE 2009 Conference in Sarajevo incorporates the role of Medical informatics as a scientific, technological, philosophical, and medical discipline. It also raises the question as to whether and to what extent medical informatics is contributing to a new scientific, cultural, social and political community in Europe. We envision a Europe in which her citizens will be able to live safer and healthier lives.

Prof Izet Masic, MD, PhD, Chair of LOC of MIE 2009

CONFERENCE **FACTS**

CONGRESS VENUE

Hotel Holiday Inn, Sarajevo

Zmaja od Bosne 4

71000 Sarajevo, Bosnia and Herzegovina Tel: +387-33-288000

Transportation to and from the venue:

- from Sarajevo International Airport (SJJ): distance 8 KM, taxi fee (one way) is 10 EUR (20 min drive)

- from Sarajevo Bus and Train Station: distance 1 KM, taxi fee (one way) is 2 EUR (2 min drive)

- driving directions: from the airport, Dubrovnik and Zagreb via Motorway E, at Stupska Petlja (loop) exit to the left - continue down the Zmaja od Bosne Street

REGISTRATION DESK OPENING HOURS

Sunday, August 30	08:00 – 17:30
Monday, August 31	08:00 – 16:00
Tuesday, September 1	08:00 – 16:00
Wednesday, September 2	08:00 – 12:00

OFFICIAL LANGUAGE

English is the official language of the conference.

BADGES

The conference badge shall be used, well visible, all time during your visit in the conference and exhibition premises.

CURRENCY

The Bosnian currency is Convertible Mark (BAM). One BAM is about EUR 0,5. The banks are open weekdays from 08:00 to 18:00, on Saturday from 09:00 to 13:00, and they are closed on Sundays. There is an ATM machine just outside the entrance of the MIE2009 venue and there are plenty of them in the city centre.

SHOPPING

Shops in Sarajevo are open daily from 09:00/10:00 until 18:00 or later. Shopping centers are also open during Saturdays and Sundays.

TRANSPORTATION WITHIN SARAJEVO

The easiest way to get around in Sarajevo is by tram, trolley or bus. The trams, trolleys and busses are running frequently during daytime. Tickets can be bought on board or at the nearby newspaper stands or kiosks. A public transportation map can be obtained at the registration desk or at the tourist office. Taxis are also a good way for transportation but ask the driver to use the fare meter and do not pay more than the meter shows.

INTERNET ACCESS

Access to Internet is available via the hotel wireless LAN connection.

PROCEEDINGS

The proceedings can be found in your conference bag (included only in full conference registration package). Additional printed or CD-ROM version of the proceedings can be bought at the registration desk.

LINKS

MIE 2009 website: WWW.MIE2009.ORG
EFMI website: WWW.EFMI.ORG
BHSMI website: WWW.BHSMI.BA

MIE 2009 SPONSORS

SPECIAL EVENTS AND MEETINGS

Date/Time	Event	Location
FRIDAY, August 28		
09:00-17:00	EFMI board meeting (by invitation)	PLIVA hall
19:00-23:00	EFMI board dinner (by invitation)	Fojnica Franciscan Monastery
SATURDAY, August 29		
09:00-17:00	EFMI Council meeting (by invitation)	PLIVA hall
20:00-23:00	EFMI Council dinner (by invitation)	Restaurant "Park princeva"
SUNDAY, August 30		
18:00-22:00	MIE 2009 Opening Ceremony	National Theatre
18:00-18:10	Welcome by the BHSMI president Prof Izet Masic, MD, PhD	
18:10-18:20	Welcome by the EFMI president Jacob Hofdijk, PhD	
18:20-18:30	Program introduction by the SPC chair Prof Klaus-Peter Adlassnig, PhD	
18:30-18:40	Welcome by the president of IMIA Prof Reinhold Haux, PhD	
18:40-18:50	Welcome by the University of Sarajevo Rector Prof Faruk Caklovica, PhD	
18:50-19:20	Keynote presentation Prof Gjuro Dezelic, PhD Topic: After Three Decades of Medical Informatics Europe Congresses	
19:20-19:50	Keynote presentation Prof Gerard Comyn, PhD Topic: EU eHealth Agenda: Strengthening Research and Innovation	
20:00-22:00	Get-together party	
MONDAY, August 31		
19:30-21:30	Reception sponsored by the Sarajevo Canton Government and Welcome by the Prime Minister Besim Mehmedic	National Museum
TUESDAY, September 1		
21:00-00:00	Gala dinner	Restaurant "HS - Pivnica"
WEDNESDAY, September 2		
13:15-14:00	Closing ceremony	CONGRESS hall

MIE 2009 **OVERVIEW**

SUNDAY, 30 AUGUST				
9:00–12:00	Tutorial 1 (part 1)	Tutorial 2 (part 1)	Tutorial 3	Tutorial 4
COFFEE BREAK 10:20–10:40				
9:00–13:00	BHSMI special track: E-health and Telemedicine to support scientific cooperation between Adriatic and Balkan countries (part 1)			
LUNCH BREAK 13:00–14:00				
14:00–17:00	Tutorial 1 (part 2)	Tutorial 2 (part 2)	Tutorial 5	
COFFEE BREAK 15:20–15:40				
14:00–17:00	BHSMI special track: E-health and Telemedicine to support scientific cooperation between Adriatic and Balkan countries (part 2)			
18:00–22:00	MIE 2009 Opening Ceremony			
	Opening 1: Gjuro DEZELIC, Croatia: After Three Decades of Medical Informatics Europe Congresses			
	Opening 2: Gerard COMYN, European Commission, Brussels: EU eHealth Agenda: Strengthening Research and Innovation			

MONDAY, 31 AUGUST								
	Track A	Track B	Track C	Track D	Track E	Track F	Track G	Track H
9:00–9:45	Keynote 1: William Edward HAMMOND, U.S.A.: Realizing the Potential of Healthcare Information Technology to Enhance Global Health							
10:00–11:20	Session 1	Session 2	Session 3	Session 4	Workshop 1 (part 1)	Workshop 2	Workshop 3	Workshop 4
COFFEE BREAK 11:20–11:40								
11:40–13:00	Session 5	Session 6	Session 7	Session 8				
LUNCH BREAK & Poster presentations 13:00–14:00								
14:00–14:45	Keynote 2: Rolf EWERS, Austria: Augmented Reality and Telenavigation in Cranio Maxillofacial and Oral Surgery							
15:00–16:20	Session 9	Session 10	Session 11	Session 12	Workshop 1 (part 2)	Workshop 5	Workshop 6	Workshop 7
COFFEE BREAK 16:20–16:40								
16:40–18:00	Session 13	Session 14	Session 15	Session 16				
18:15–19:00	Keynote 3: Mordechai SHANI, Israel: The Use of ICT in the Delivery of Healthcare Services to the Chronic Patient							

TUESDAY, 1 SEPTEMBER									
	Track A	Track B	Track C	Track D	Track E	Track F	Track G	Track H	Track I
9:00–9:45	Keynote 4: Reinhold HAUX, Germany: Health-Enabling Technologies for Pervasive Health Care: A Pivotal Field for Future Medical Informatics Research and Education?								EuroRec Conference
10:00–11:20	Session 17	Session 18	Session 19	Session 20	Workshop 8 (part 1)	Workshop 9	Workshop 10	Workshop 11	
COFFEE BREAK 11:20–11:40									
11:40–13:00	Session 21	Session 22	Session 23	Session 24					
LUNCH BREAK & Poster presentations 13:00–14:00									
14:00–14:45	Keynote 5: Andrew BALAS, U.S.A.: Interoperable Electronic Patient Records for Health Care Improvement								
15:00–16:20	Session 25	Session 26	Session 27	Session 28	Workshop 8 (part 2)	Workshop 12	Workshop 13	SW-Demos 1&2&3&4	
COFFEE BREAK 16:20–16:40									
16:40–18:00	Session 29	Session 30	Session 31	Session 32					
18:15–19:00	Keynote 6: Blackford MIDDLETON, U.S.A.: Clinical Decision Support								

WEDNESDAY, 2 SEPTEMBER							
	Track A	Track B	Track C	Track D	Track E	Track F	Track G
9:00–9:45	Keynote 7: Silvia MIKSCH, Austria: Computer-Based Medical Guidelines and Protocols: Current Trends						
10:00–11:20	Session 33	Session 34	Session 35	Session 36	Workshop 14	Workshop 15	Workshop 16
COFFEE BREAK 11:20–11:40							
11:40–13:00	Session 37	Session 38	Session 39	Session 40			
13:15–14:00	Closing ceremony						

MIE 2009 SCIENTIFIC
PROGRAMME

2½ DAYS OF PRESENTATIONS:

- 9 keynote lectures
- 40 parallel scientific sessions, including 150 oral presentations of full papers and 21 oral presentations of student papers
- 16 workshops
- 1 software demonstration session
- 2 poster sessions, including 21 posters
- EuroRec conference

A PRE-CONFERENCE DAY:

- 2 full-day tutorials
- 3 half-day tutorials
- BHSMI special track

SUBJECTS COVERED IN THE PRESENTATIONS:

- Bioinformatics
- Biosignal processing
- Decision support
- Devices and sensors
- Disease management
- Electronic health record
- Expert systems
- Guidelines and protocols
- Health information systems
- Home-based eHealth
- Human-computer interaction
- Imaging and visualization
- Impact and usability
- Interoperability
- Learning and education
- Knowledge management
- Knowledge-based systems
- Modelling and simulation
- National eHealth roadmaps
- Nursing informatics
- Pan European-cross border applications
- Patient safety
- Personal health records
- Pervasive healthcare
- Privacy and security
- Public health and consumer informatics
- Quality assurance
- Semantic web
- Telemedicine
- Trustful health information for citizens and patients
- Web 2.0 applications

SUNDAY, 30 AUGUST, MORNING & AFTERNOON

Tutorial 1 (part 1) - ROOM UNA

9:00   eHealth Platforms for Personal Health: Architecture, Policies, Models, Security and Privacy
Requirements and Solutions
Bernd BLOBEL, Jan VESSEUR, Peter PHAROW, Ragnar NORDBERG

Tutorial 2 (part 1) - ROOM BOSNA

9:00   Nursing Informatics
Patrick WEBER

Tutorial 3 - ROOM NERETVA

9:00   Terminological Systems – Understanding, Application and Maintenance
Ronald CORNET, Nicolette F. DE KEIZER

Tutorial 4 - ROOM VRBAS

9:00   Using an Open Source Observational Tool to Measure the Influence of the Doctor's Consulting
Style and the Brand of Computer System on the Outcomes of the Clinical Consultation
Pushpa KUMARAPELI, Simon DE LUSIGNAN

13:00   LUNCH BREAK

Tutorial 1 (part 2) - ROOM UNA

14:00   eHealth Platforms for Personal Health: Architecture, Policies, Models, Security and Privacy
Requirements and Solutions

Tutorial 2 (part 2) - ROOM BOSNA

14:00   Nursing Informatics

Tutorial 5 - ROOM HERCEGOVINA

14:00   Biomedical Ontologies: The State of the Art
Barry SMITH, Werner CEUSTERS

SUNDAY, 30 AUGUST, EVENING

Opening 1 - NATIONAL THEATRE

        Chair: Izet MASIC

18:50   After Three Decades of Medical Informatics Europe Congresses
*Gjuro DEZELIC (Honorary President of the Croatian Society for Medical Informatics, ret. Professor,
Andrija Stampar School of Public Health, Medical School, University of Zagreb, Croatia)*

Opening 2 - NATIONAL THEATRE

        Chair: Jacob HOFDIJK

19:20   EU eHealth Agenda: Strengthening Research and Innovation
*Gérard COMYN (Head of the Unit ICT for Health, DG Information Society and Media, European
Commission, Brussels)*

MONDAY, 31 AUGUST, MORNING

Keynote 1 - CONGRESS HALL

Chair: Bernd BLOBEL

9:00 Realizing the Potential of Healthcare Information Technology to Enhance Global Health
William Edward HAMMOND, Ph.D., FACMI, FAIMBE (Professor Emeritus, Department of Community and Family Medicine; Professor Emeritus, Department of Biomedical Engineering; Adjunct Professor, Fuqua School of Business, Duke University, Durham, North Carolina, U.S.A.)

Track A - CONGRESS HALL

Oral paper session 1: National eHealth

Chairs: Etienne DE CLERCQ, Asim KURJAK

10:00 Building eHealth National Strategies – The Romanian Experience
George I. MIHALAS, Dan D. FARCAS, Diana LUNGEANU, Mircea FOCSA

10:20 Primary Healthcare Research Network: The Belgian ResoPrim Recommendations
Etienne DE CLERCQ, Viviane VAN CASTEREN, Pascale JONCKHEER, Peter BURGGRAEVE

10:40 The Second Generation Slovenian Health Insurance Card
Anka BOLKA

11:00 On-line Data Exchange in Slovenian Healthcare and Health Insurance
Tomaz MARCUN

Track B - ROOM BOSNA

Oral paper session 2: Social networks and the web

Chairs: Francisco J. GRAJALES III, Adnan BAJRAKTAREVIC

10:00 An Analysis of Personal Medical Information Disclosed in YouTube Videos Created by Patients with Multiple Sclerosis
Luis FERNANDEZ-LUQUE, Najeed ELAHI, Francisco J. GRAJALES III

10:20 Informal Social Networks amongst Administrative Staff at a University Hospital
Ugur BILGE, Utku SENOL, Osman SAKA

10:40 Knowledge Sharing for Pediatric Pain Management via a Web 2.0 Framework
Syed Sibte Raza ABIDI, Salah HUSSINI, Wimorat SRIRAJ, Somboon THIENTHONG, G. Allen FINLEY

11:00 Social Care Informatics – The Missing Partner in eHealth
Michael RIGBY, Penny HILL, Sabine KOCH, Jarmo KÄRKI

Track C - ROOM HERCEGOVINA

Oral paper session 3: Drugs and patient safety

Chairs: Jean Marie RODRIGUES, Dragica MILINKIC

10:00 Drug Information Portal in Europe: Information Retrieval with Multiple Health Terminologies
Saoussen SAKJI, Catherine LETORD, Suzanne PEREIRA, Badisse DAHAMNA, Michel JOUBERT, Stéfan J. DARMONI

10:20 Is the "International Classification for Patient Safety" a Classification?
Stefan SCHULZ, Daniel KARLSSON, Christel DANIEL, Hans COOLS, Christian LOVIS

10:40 Ontological Representation of Adverse Drug Reactions Using the Foundational Model of Anatomy
Cédric BOUSQUET, Philippe GASPERINA, Béatrice TROMBERT, Lucienne CLAVEL, Anand KUMAR, Jean Marie RODRIGUES

11:00 Automatic Construction of Dictionaries, Application to Product Characteristics Indexing
Suzanne PEREIRA, Blandine PLAISANTIN, Michelle KORCHIA, Nicolas ROZANES, Elisabeth SERROT, Michel JOUBERT, Stéfan J. DARMONI

Track D - ROOM CASINO

Oral paper session 4: Bioinformatics
Chairs: Thomas VETTERLEIN, Dusanka BOSKOVIC

10:00 European Efforts in Nanoinformatics Research Applied to Nanomedicine
Stefano CHIESA , Diana DE LA IGLESIA, Jose CRESPO, Fernando MARTIN-SANCHEZ, Josipa KERN, George POTAMIAS, Victor MAOJO

10:20 Single Nucleotide Polymorphisms and Health Behaviours Related to Obesity – Trawling the Evidence in the Prospect of Personalised Prevention
Kristina FISTER, Ozren POLASEK, Silvije VULETIC, Josipa KERN

10:40 GeneMining: Identification, Visualization, and Interpretation of Brain Ageing Signatures
Paola SALLE, Sandra BRINGAY, Maguelonne TEISSEIRE, Feirouz CHAKKOUR, Mathieu ROCHE, Ronza Abdel RASSOUL, Jean-Michel VERDIER, Gina DEVAU

11:00 Machine Learning Analysis of Proteomics Data for Early Diagnosis
Dmitry DEVETYAROV

11:10 Cadiag-2 and Fuzzy Probability Logics
Pavel RUSNOK, Thomas VETTERLEIN, Klaus-Peter ADLASSNIG

Track E - ROOM UNA

Workshop 1 (part 1)
10:00 The Role of Ontologies for Sustainable, Semantically Interoperable and Trustworthy EHR Solutions
Bernd BLOBEL, Dipak KALRA, Marc KOEHN, Ken LUNN, Peter PHAROW, Pekka RUOTSALAINEN, Stefan SCHULZ, Barry SMITH

Track F - ROOM NERETVA

Workshop 2
10:00 Introducing Guidelines for Good Evaluation Practice in Health Informatics
Pirkko NYKÄNEN, Jytte BRENDER, Elske AMMENWERTH, Jan TALMON, Nicolette F. DE KEIZER, Michael RIGBY

Track G - ROOM VRBAS

Workshop 3
10:00 Open Source and Healthcare in Europe – Time to Put Leading Edge Ideas into Practice
Peter J. MURRAY, Graham WRIGHT, Thomas KAROPKA, Helen BETTS, Andrej OREL

Track H - ROOM DRINA

Workshop 4

10:00   Patient Safety: Detection and Prevention of Adverse Drug Events
Régis BEUSCART, Peter McNAIR, Stéfan J. DARMONI, Vassilis KOUTKIAS, Nicos MAGLAVERAS, Marie-Catherine BEUSCART-ZEPHIR, Christian NOHR, and the PSIP PROJECT CONSORTIUM

Track A - CONGRESS HALL

Oral paper session 5: HIS

Chairs: Pirkko NYKÄNEN, Zekerijah SABANOVIC

11:40   Single Source Information Systems to Connect Patient Care and Clinical Research
Martin DUGAS, Bernhard BREIL, Volker THIEMANN, Jens LECHTENBÖRGER, Gottfried VOSSEN

12:00   Linking Informaticians and End Users – Using the STARE-HI Evaluation Reporting Framework as a Unifying Design Approach
Michael RIGBY, Jan TALMON, Jytte BRENDER, Elske AMMENWERTH, Nicolette F. DE KEIZER, Pirkko NYKÄNEN

12:20   The Role of a Nation-Wide Information System in Improving the Access to Surgery in Portugal
Pedro GOMES, Luís Velez LAPÃO

12:40   ITIL Assessment in a Healthcare Environment: The Role of IT Governance at Hospital São Sebastião
Luís Velez LAPÃO, Álvaro REBUGE, Miguel M. SILVA, Rui GOMES

Track B - ROOM BOSNA

Oral paper session 6: Social networks and the web

Chairs: Josef INGENERF, Igor KULASIN

11:40   eHealth Tools for Patients and Professionals in a Multicultural World
Gunnar O. KLEIN, Karin KAJBJER

12:00   Web-Based Resources for Peer Support – Opportunities and Challenges
Anne MOEN, Ole SMØRDAL, Idunn SEM

12:20   Organizational vs. Technical Variables: Impact on the Collective Aspects of Healthcare Work Situations
Sylvia PELAYO, Françoise ANCEAUX, Janine ROGALSKI, Marie-Catherine BEUSCART-ZEPHIR

12:40   Relevance of Google-Customized Search Engine vs. CISMeF Quality-Controlled Health Gateway
Jean-François GEHANNO, Gaétan KERDELHUÉ, Saoussen SAKJI, Philippe MASSARI, Michel JOUBERT, Stéfan J. DARMONI

Track C - ROOM HERCEGOVINA

Oral paper session 7: Pharmacovigilance and order entry

Chairs: Christian LOVIS, Nedim HRELJA

11:40   A Knowledge Management Platform for Documentation of Case Reports in Pharmacovigilance
Florence AMARDEILH, Cédric BOUSQUET, Sylvie GUILLEMIN-LANNE, Mathilde WISS-THEBAULT, Laetitia GUILLOT, Denis DELAMARRE, Agnès LILLO-LE LOUET, Anita BURGUN

12:00　Evaluation of an Ontological Resource for Pharmacovigilance
Marie-Christine JAULENT, Iulian ALECU

12:20　Does Computerised Provider Order Entry Reduce Test Turnaround Times? A Before-and-After Study at Four Hospitals
Johanna I. WESTBROOK, Andrew GEORGIOU, Mary LAM

12:40　Usability Evaluation of a Computerized Physician Order Entry for Medication Ordering
Reza KHAJOUEI, Dennis de JONGH, Monique W. M. JASPERS

Track D - ROOM CASINO

Oral paper session 8: Decision support
　　　Chairs: Marek KURZYNSKI, Zoran RIDJANOVIC

11:40　Dynamic Data Analysis and Data Mining for Prediction of Clinical Stability
Kristien VAN LOON, Fabian GUIZA, Geert MEYFROIDT, Jean-Marie AERTS, Jan RAMON, Hendrik BLOCKEEL, Maurice BRUYNOOGHE, Greet VAN DEN BERGHE, Daniel BERCKMANS

12:00　A Methodology for the Extraction of Quantitative Risk Indexes from Medical Injuries Compensation Claims
Simona DALLE CARBONARE, Fulvia FOLLI, Emanuele PATRINI, Riccardo BELLAZZI

12:20　Comparison of Bayesian Network and Decision Tree Methods for Predicting Access to the Renal Transplant Waiting List
Sahar BAYAT, Marc CUGGIA, Delphine ROSSILLE, Michèle KESSLER, Luc FRIMAT

12:40　Developing a Theoretical Model of Clinician Information Usage Propensity
Philip J. SCOTT, James S. BRIGGS

13:00　LUNCH BREAK & POSTER PRESENTATIONS

POSTER 1
A Highly Scalable Information System as Extendable Framework Solution for Medical R&D Projects
Silke HOLZMÜLLER-LAUE, Bernd GÖDE, Regina STOLL, Kerstin THUROW

POSTER 2
Solutions for Deploying Multi-Architecture EHRs on a Single EHR Educational Portal
Brian ARMSTRONG, Andre KUSHNIRUK, Elizabeth BORYCKI

POSTER 3
Evaluation of an Information System Model for Primary Health Care
Suad SIVIC, Ljubisa GOJKOVIC, Senad HUSEINAGIC

POSTER 4
Towards ISO 13606 and openEHR Archetype-Based Semantic Interoperability
Catalina MARTÍNEZ-COSTA, Marcos MENÁRGUEZ-TORTOSA, Jesualdo Tomás FERNÁNDEZ-BREIS

POSTER 5
Clinical Laboratory Sciences Data Transmission: The NPU Coding System
*Joint Committee on Nomenclature, Properties and Units (C-SC-NPU) of the IFCC and IUPAC
Françoise PONTET, Ulla MAGDAL PETERSEN, Xavier FUENTES-ARDERIU, Gunnar NORDIN, Ivan BRUUNSHUUS, Jarkko IHALAINEN, Daniel KARLSSON, Urban FORSUM, René DYBKAER, Gunther SCHADOW, Wolf KUELPMANN, Georges FÉRARD, Dongchon KANG, Clement McDONALD, Gilbert HILL*

POSTER 6

The Role of International Classification of Diseases in Assessment of Patients with Biliary Tract Disease
Haris PANDZA, Izet MASIC, Reuf KARABEG, Braco HAJDAREVIC, Zekerijah SABANOVIC, Zoran HADZIAHMETOVIC

POSTER 7

Approaching Harmonised Medication Information Management through Process and Information Modelling
Pirkko NYKÄNEN, Joonas MÄKINEN, Pirkko KORTEKANGAS, Antti TOIVANEN

POSTER 8

Feasibility Study of a Web Application for Self-Report of Anticancer Treatment Toxicities
Vincenzo DELLA MEA, Ivan DE MOMI, Giuseppe APRILE, Fabio PUGLISI, Jessica MENIS, Anica CASETTA, Silvia BOLZONELLO, Gianpiero FASOLA

POSTER 9

Integrating A3 Reports and the House of Quality: Improving Workflow in the Recovery Room Using Information Technology
Mu-Hsing KUO, Elizabeth M. BORYCKI, Andre W. KUSHNIRUK, Te-Shu LEE

POSTER 10

The Development of a Swedish National Information Structure
Lars-Åke JOHANSSON, Rolf WOHED, Karin KAJBJER

POSTER 11

Trauma Network North-West – Improving Holistic Care for Trauma Patients by Means of Internet and Mobile Technologies
Michael SPITZER, Hendrik VERST, Christian JUHRA, Frank UECKERT

POSTER 12

KARDIONET: Telecardiology Based on GRID Technology
Janusz SIERDZINSKI, Piotr BALA, Robert RUDOWSKI, Marcin GRABOWSKI, Grzegorz KARPINSKI, Bartosz KACZYNSKI

POSTER 13

Mobile Phone-Based Teledermatologic Compliance Management – Preliminary Results of the TELECOMP Study
Dieter HAYN, Silvia KOLLER, Rainer HOFMANN-WELLENHOF, Wolfgang SALMHOFER, Peter KASTNER, Günter SCHREIER

POSTER 14

An XML Schema for Automated Data Integration in a Multi-Source Information System Dedicated to End-Stage Renal Disease
Eric DUFOUR, Mohamed BEN SAÏD, Jean Philippe JAIS, Loic Le MIGNOT, Jean-Baptiste RICHARD, Paul LANDAIS

POSTER 15

Fractal Behaviour of Heart Rate Variability Reflects Severity in Stroke Patients
Gianni D'ADDIO, Graziamaria CORBI, Agostino ACCARDO, Giovanna RUSSO, Nicola FERRARA, M. Cristina MAZZOLENI, Tanja PRINCI

POSTER 16

Control of Dexterous Bio-Prosthetic Hand via Sequential Recognition of EMG Signals Using Fuzzy Relations
Marek KURZYNSKI, Andrzej WOLCZOWSKI

POSTER 17

Simulation of the Usage of Gaussian Mixture Models for the Purpose of Modelling Virtual Mass Spectrometry Data

Małgorzata PLECHAWSKA, Joanna POLANSKA

POSTER 18

Digital Techniques in Experimental Medicine

Tarik MASIC

POSTER 19

Designing a Socio-Economic Assessment Method for Integrative Biomedical Research: The Osteoporotic Virtual Physiological Human Project

Rainer THIEL, Karl A. STROETMANN, Veli N. STROETMANN, Marco VICECONTI

POSTER 20

Open Source Technologies for Dyslexic Pupils

Francesco DI CERBO, Gabriella DODERO, Paolo LORENZI

POSTER 21

Task Force of the EFMI Journals: Background, Rationale and Purpose

Izet MASIC, Josipa KERN, Jana ZVAROVA, Simon de LUSIGNAN

MONDAY, 31 AUGUST, AFTERNOON

Keynote 2 - CONGRESS HALL

Chair: Reinhold HAUX

14:00   Augmented Reality and Telenavigation in Cranio Maxillofacial and Oral Surgery
Rolf EWERS (Prof. Dr., Chairman of the University Hospital for Cranio Maxillofacial and Oral Surgery, Vienna, Austria; CMF-Institute-Vienna, Austria)

Track A - CONGRESS HALL

Oral paper session 9: HIS

Chairs: Andrej OREL, Haris PANDZA

15:00   The Importance of Timely Information in National Cancer Screening Programmes
Anže DROLJC, Tomaž GRBEC, Andrej OREL

15:20   Transferring HIS Data to Population-Based Cancer Registries – Concept and First Implementations
Bernhard BREIL, Martin DUGAS

15:40   Contribution of Record Linkage to Vital Status Determination in Cancer Patients
Isabelle FOURNEL, Michaël SCHWARZINGER, Christine BINQUET, Eric BENZENINE, Catherine HILL, Catherine QUANTIN

16:00   Foreign Currency-Related Translation Complexities in Cross-Border Healthcare Applications
Anand KUMAR, Jean M. RODRIGUES

Track B - ROOM BOSNA

Oral paper session 10: Semantic web

Chairs: Matthias SAMWALD, Zlatan MASIC

15:00   Entrez Neuron RDFa: A Pragmatic Semantic Web Application for Data Integration in Neuroscience Research
Matthias SAMWALD, Ernest LIM, Peter MASIAR, Luis MARENCO, Huajun CHEN, Thomas MORSE, Pradeep MUTALIK, Gordon SHEPHERD, Perry MILLER, Kei-Hoi CHEUNG

15:20   Towards a Semantic Framework for an Integrative Description of Neuroscience Patterns and Studies: A Case for Emotion-Related Data
Charalampos BRATSAS, Christos A. FRANTZIDIS, Manousos KLADOS, Christos PAPADELIS, Costas PAPPAS, Panagiotis D. BAMIDIS

15:40   Electronic Referrals in Healthcare: A Review
Vigdis HEIMLY

16:00   Task Analysis and Application Services for Cross-Organizational Scheduling and Citizen eBooking
Juha MYKKÄNEN, Mika TUOMAINEN, Pirkko KORTEKANGAS, Anne NISKA

Track C - ROOM HERCEGOVINA

Oral paper session 11: Adverse drug events

Chairs: Georges DE MOOR, Meldijana OMERBEGOVIC

15:00   An Evolutionary Approach to the Representation of Adverse Events
Werner CEUSTERS, Maria CAPOLUPO, Barry SMITH, Georges DE MOOR

15:20   Human Factors Methods to Support the Experts' Review of Automatically Detected Adverse Drug Events
Nicolas LEROY, Brian BJØRN, Adrian BACEANU, Marie-Catherine BEUSCART-ZEPHIR

15:40   A Framework for Assessing Adherence and Persistence to Long-Term Medication
Thusitha MABOTUWANA, Jim WARREN

16:00   Data-Mining-Based Detection of Adverse Drug Events
Emmanuel CHAZARD, Cristian PREDA, Béatrice MERLIN, Grégoire FICHEUR, the PSIP consortium, Régis BEUSCART

Track D - ROOM CASINO

Oral paper session 12: Decision support

Chairs: Izet MASIC, Davud ZAHIROVIC

15:00   Using Artificial Neural Networks to Predict Potential Complications during Trauma Patients' Hospitalization Period
Adrian PEARL, David BAR-OR

15:20   Optimized Detection of Tar Content in the Manufacturing Process Using Adaptive Neuro-Fuzzy Inference Systems
Zikrija AVDAGIC, Lejla BEGIC FAZLIC, Samim KONJICIJA

15:40   The Effect of Removing the Force Feedback during the Quiet Stance
Jyrki RASKU, Martti JUHOLA, Ilmari PYYKKÖ, Esko TOPPILA, Kirsi VARPA

16:00 Object-Oriented Integrated Approach for the Design of Scalable ECG Systems
Dusanka BOSKOVIC, Ingmar BESIC, Zikrija AVDAGIC

Track E - ROOM UNA

Workshop 1 (part 2)

15:00 The Role of Ontologies for Sustainable, Semantically Interoperable and Trustworthy EHR Solutions
Bernd BLOBEL, Dipak KALRA, Marc KOEHN, Ken LUNN, Peter PHAROW, Pekka RUOTSALAINEN, Stefan SCHULZ, Barry SMITH

Track F - ROOM NERETVA

Workshop 5

15:00 Planning for National Health Information System Evaluation
Hannele HYPPÖNEN, Persephone DOUPI, Päivi HÄMÄLÄINEN, Jorma KOMULAINEN, Pirkko NYKÄNEN, Reima SUOMI

Track G - ROOM VRBAS

Workshop 6

15:00 Health Care Process and Workflow in Continuity of Care
François MENNERAT, Karl-Henrik LUNDELL, Magnus FOGELBERG, Jacob HOFDIJK, Silviu BRAGA

Track H - ROOM DRINA

Workshop 7

15:00 Advanced Computer Methods for Patient Safety
Hans ÅHLFELDT, Patrick RUCH, Dirk COLAERT, Håkan HANBERGE, Sten WALTHER, Johan VAN DER LEI, Régis BEUSCART, Paul BARTEL, Carl SUETENS

Track A - CONGRESS HALL

Oral paper session 13: EHR

    Chairs: Georg DUFTSCHMID, Amira SKOPLJAK

16:40 Development of an EHR System for Sharing – A Semantic Perspective
Haifeng LIU, Xue Qiao HOU, Gang HU, Jing LI, Yu Qi DING

17:00 Validation of Standardized and Structured EHR Data in the Dual Model Approach
Christoph RINNER, Georg DUFTSCHMID

17:10 Establishing a Personal Electronic Health Record in the Rhine-Neckar Region
Oliver HEINZE, Antje BRANDNER, Björn BERGH

17:20 Intelligent Consumer-Centric Electronic Medical Record
Gang LUO, Selena B. THOMAS, Chunqiang TANG

17:40 Engaging Clinicians in Clinical Content: Herding Cats or Piece of Cake?
Heather LESLIE, Sam HEARD, Sebastian GARDE, Ian MCNICOLL

Track B - ROOM BOSNA

Oral paper session 14: Home care and web sites

Chairs: M. Cristina MAZZOLENI, Zoran GAJIC

16:40 KernPaeP – A Web-Based Pediatric Palliative Documentation System for Home Care
Tobias HARTZ, Hendrik VERST, Frank UECKERT

17:00 Development and Evaluation of a Patient Information Website for Childhood Cancer Survivors
Sebastiaan L. KNIJNENBURG, Leontien C. KREMER, A. Birgitta VERSLUYS, Jaldert R.J. VAN DER BEEK, Monique W.M. JASPERS

17:20 Screen Complexity of Italian Institutional Cancer Web Sites
Francesca CALLIGARO, Ines GIORGI, Raffaella BUTERA, Bibiana BELLOTTI, M. Cristina MAZZOLENI

17:30 An openEHR-Based Clinical Decision Support System: A Case Study
Hajar KASHFI

17:40 New Patient Interaction Formulas in Spanish and Catalan: A Case for Forumclinic
Inmaculada GRAU, Joan GENE-BADIA, Miquel BERNARDO, Marc de SEMIR, Francisco J. GRAJALES III

Track C - ROOM HERCEGOVINA

Oral paper session 15: Decision support

Chairs: Wolfgang ORTHUBER, Malik JAKIRLIC

16:40 Automatic Medical Knowledge Acquisition Using Question-Answering
Emilie PASCHE , Douglas TEODORO, Julien GOBEILL, Patrick RUCH, Christian LOVIS

17:00 Mining Administrative and Clinical Diabetes Data with Temporal Association Rules
Stefano CONCARO, Lucia SACCHI, Carlo CERRA, Riccardo BELLAZZI

17:20 Knowledge Discovery about Quality of Life Changes of Spinal Cord Injury Patients: Clustering Based on Rules by States
Karina GIBERT, Alejandro GARCÍA-RUDOLPH, Lluïsa CURCOLL, Dolors SOLER, Laura PLA, José María TORMOS

17:40 A Searchable Patient Record Database for Decision Support
Wolfgang ORTHUBER, Thorsten SOMMER

18:00 Knowledge Discovery in Neuroinformatics
Bartlomiej WILKOWSKI

Track D - ROOM CASINO

Oral paper session 16: Modelling and simulation

Chairs: Lacramioara STOICU-TIVADAR, Lejla BEGIC

16:40 Equity of Accessibility to Dialysis Facilities
Jean-Baptiste RICHARD, Jean-Claude ALDIGIER, Loïc LE MIGNOT, Florence GLAUDET, Mohamed BEN SAID, Paul LANDAIS

17:00 Assessing Importance of Dietary Data in Anticoagulation Treatment
Peter Brønnum NIELSEN, Esben Haldrup ERIKSEN, Rasmus Thoft MILTHERS, Ole K. HEJLESEN

17:20   An Automated System for Processing Electrodermal Activity
Christos A. FRANTZIDIS, Evdokimos KONSTANTINIDIS, Costas PAPPAS, Panagiotis D. BAMIDIS

17:30   Tissue Engineering in Fractured Mandible Reconstruction
Andreea ROBU, Lacramioara STOICU-TIVADAR

17:40   An Internet-Based Simulation System for Training and Development of Regional-Healthcare-Centers Managers
David BREGMAN, Arik KORMAN, Ana SHETACH, Nira SHALOM

Keynote 3 - CONGRESS HALL

Chair: Assa REICHERT

18:15   The Use of ICT in the Delivery of Healthcare Services to the Chronic Patient
Mordechai SHANI (Professor, Sackler Faculty of Medicine, School of Public Health, Tel Aviv University, Ramat Aviv, Israel; Gertner Institute for Epidemiology and Health Policy Research, Sheba Medical Center, Tel Hashomer, Israel)

TUESDAY, 1 SEPTEMBER, MORNING

Keynote 4 - CONGRESS HALL

Chair: Andrew BALAS

9:00 Health-Enabling Technologies for Pervasive Health Care: A Pivotal Field for Future Medical Informatics Research and Education?

Reinhold HAUX (Professor, Peter L. Reichertz Institute for Medical Informatics, University of Braunschweig – Institute of Technology and Hannover Medical School, Germany)

Track A - CONGRESS HALL

Oral paper session 17: EHR

Chairs: John MANTAS, Suad SIVIC

10:00 Design of a 'Smart' Patient Record System for Mammography Patients

Antonis FRIGAS, George SPYROU, Argyro ANTARAKI, Elisabeth PATIRAKI, Konstantinos KOUFOPOULOS, John MANTAS, Panos LIGOMENIDES

10:20 Relevance and Management of Methylation Data in Electronic Health Records

Georg GOEBEL, Karl P. PFEIFFER, Thomas SCHABETSBERGER, Claudius KALOZY, Heidi FIEGL, Karin LEITNER

10:40 The Electronic Health Record in Austria: Physicians' Acceptance Is Influenced by Negative Emotions

Werner HACKL, Alexander HOERBST, Elske AMMENWERTH

11:00 Integrating Clinical Theory and Practice in an Epilepsy-Specific Electronic Patient Record

Patricia BREEN, Louise Mc QUAID, Jane GRIMSON, Norman DELANTY, Mary DUNNE, Brendan DUNLEAVY, Charles NORMAND, Mary FITZSIMONS

11:10 Software Architecture for Improving Accessibility to Medical Text-Based Information

Vasile TOPAC, Vasile STOICU-TIVADAR

Track B - ROOM BOSNA

Oral paper session 18: Public health informatics

Chairs: Jacob HOFDIJK, Senad HUSEINAGIC

10:00 The Use of Open Source and Web2.0 in Developing an Integrated EHR and E-Learning System for the Greek Smoking Cessation Network

Stathis Th. KONSTANTINIDIS, Evdokimos KONSTANTINIDIS, Maria M. NIKOLAIDOU, Afroditi K. BOUTOU, Nikos HAVOUZIS, Paraskevi ARGYROPOULOU, Panagiotis D. BAMIDIS

10:20 Comparative Study between Expert and Non-Expert Biomedical Writings: Their Morphology and Semantics

Jolanta CHMIELIK, Natalia GRABAR

10:40 Designing an E-Health Application in Collaboration with Obesity Patients

Anita DAS

11:00 Improving Cardiology Workflow in a Hospital Using a Mobile Software Solution

Romina PINTEA, Lacramioara STOICU-TIVADAR

11:10   Interoperability Services in the MPOWER Ambient Assisted Living Platform
Marius MIKALSEN, Sten HANKE, Thomas FUXREITER, Ståle WALDERHAUG, Leendert WIENHOFEN

Track C - ROOM HERCEGOVINA

Oral paper session 19: Clinical guidelines

Chairs: Katharina KAISER, Salih VALJEVAC

10:00   Modelling Clinical Guidelines and Protocols for the Prevention of Risks Against Patient Safety
Andreas SEYFANG, Katharina KAISER, Silvia MIKSCH

10:20   Computerization Framework for Clinical Practice Guidelines by Extending the XML Guidelines Element Model (GEM)
Zafar HASHMI, Tatjana ZRIMEC, Andrew HOPKINS

10:40   Computerizing Clinical Pathways: Ontology-Based Modeling and Execution
Ali DANIYAL, Samina Raza ABIDI, Syed Sibte Raza ABIDI

11:00   A Formal Logical Framework for Cadiag-2
Agata CIABATTONI, Thomas VETTERLEIN, Klaus-Peter ADLASSNIG

Track D - ROOM CASINO

Oral paper session 20: Imaging and visualization

Chairs: Henning MÜLLER, Nizama SALIHEFENDIC

10:00   Virtual Model of the Human Brain for Neurosurgical Simulation
Lucio T. DE PAOLIS, Alessandro DE MAURO, Joerg RACZKOWSKY, Giovanni ALOISIO

10:20   Fuzzy-Based Extraction of Vascular Structures from Time-of-Flight MR Images
Nils Daniel FORKERT, Dennis SÄRING, Karolin WENZEL, Till ILLIES, Jens FIEHLER, Heinz HANDELS

10:40   A Visualisation Tool for Augmenting Assessment of Ankylosing Spondylitis
Shijuan LI, Stephen KAY, Stuart PORTER

11:00   Enabling Interoperability, Accessibility and Reusability of Virtual Patients across Europe – Design and Implementation
Nabil ZARY, Inga HEGE, Jörn HEID, Luke WOODHAM, Jeroen DONKERS, Andrzej A. KONONOWICZ

Track E - ROOM UNA

Workshop 8 (part 1)

10:00   HL7's Comprehensive Standards Set and Its International Collaboration for Enabling Semantically Interoperable eHealth and pHealth Solutions
Bernd BLOBEL, Catherine CHRONAKI, Robert STEGWEE, Heather GRAIN, William E. HAMMOND, Charles JAFFE, Dipak KALRA, Marc KOEHN, Francois MACARY, Alexander MENSE, Edward SHEETHAM, Stefan SCHULZ, Michael TAN, and the HL7 Affiliates Council

Track F - ROOM NERETVA

Workshop 9

10:00   Nanoinformatics: New Challenges for Biomedical Informatics at the Nano Level
Diana DE LA IGLESIA, Stefano CHIESA, Josipa KERN, Victor MAOJO, Fernando MARTIN-SANCHEZ, George POTAMIAS, Vassilis MOUSTAKIS, Joyce A. MITCHELL

Track G - ROOM VRBAS

Workshop 10

10:00   Writing for Publication in Biomedical Informatics
Jan TALMON, Nicolette F. DE KEIZER, Reinhold HAUX

Track H - ROOM DRINA

Workshop 11

10:00   A Transformation in Health Sciences Education: A Description of Health Sciences Online
Erica FRANK, Kshamica NIMALASURIYA, Kate TAIRYAN, Francisco J. GRAJALES III, Carolina SEGURA, Michelle WRUCK

Track A - CONGRESS HALL

Oral paper session 21: EHR

Chairs: Walter GALL, Adisa BAJTAREVIC-VELIC

11:40   Can openEHR Archetypes Be Used in a National Context? The Danish Archetype Proof-of-Concept Project
Knut BERNSTEIN, Ida TVEDE, Jan PETERSEN, Kirsten BREDEGAARD

12:00   A Migration to an openEHR-Based Clinical Application
Hajar KASHFI, Olof TORGERSSON

12:20   Implementing an HL7 Version 3 Modeling Tool from an Ecore Model
Balázs BÁNFAI, Brandon ULRICH, Zsolt TÖRÖK, Ravi NATARAJAN, Tim IRELAND

12:40   A Medical Device Domain Analysis Model Based on HL7 RIM
Daniela LUZI, Fabrizio PECORARO, Gregorio MERCURIO, Fabrizio L. RICCI

Track B - ROOM BOSNA

Oral paper session 22: Quality assurance

Chairs: Alexander HOERBST, Izet MASIC

11:40   Information Systems for Administration, Clinical Documentation and Quality Assurance in an Austrian Disease Management Programme
Peter BECK, Thomas TRUSKALLER, Ivo RAKOVAC, Fritz BRUNER, Dominik ZANETTIN, Thomas R. PIEBER

12:00   Requirements Regarding Quality Certification of Electronic Health Records
Alexander HOERBST, Thomas SCHABETSBERGER, Werner HACKL, Elske AMMENWERTH

12:20   Clinical and Statistical Evaluation of 1st Automatic: A Pilot Study
Anne Thilde ANDERSEN, Nikolaj Børty NIELSEN, Michael TRUDSLEV, Behamin BAKHSHAIE, Shona PEDERSEN, Ole HEJLESEN

12:40   Adopting Software Quality Measures for Healthcare Processes
Özkan YILDIZ, Onur DEMIRÖRS

Track C - ROOM HERCEGOVINA

Oral paper session 23: Clinical guidelines
Chairs: Ronald CORNET, Vanis DUJSO

11:40   Representing a Chemotherapy Guideline Using openEHR and Rules
Rong CHEN, Patrik GEORGII-HEMMING, Hans ÅHLFELDT

12:00   The Use of SNOMED CT for Representing Concepts Used in Preoperative Guidelines
Leila AHMADIAN, Nicolette F. DE KEIZER, Ronald CORNET

12:20   Embedding Oncologic Protocols into the Provision of Care: The Oncocure Project
Claudio ECCHER, Andreas SEYFANG, Antonella FERRO, Silvia MIKSCH

12:40   Using Knowledge Modelling to Measure How Clinical Practice Could Actually Be Evidence-Based: A Preliminary Analysis with Arterial Hypertension Management
Brigitte SÉROUSSI, Jacques BOUAUD, Denké L. DENKÉ, Hector FALCOFF, Jacques JULIEN

Track D - ROOM CASINO

Oral paper session 24: Imaging and visualization
Chairs: Peter PHAROW, Nermina OBRALIC

11:40   An Approach to Calculate and Visualize Intraoperative Scattered Radiation Exposure
Markus WAGNER, Christopher DUWENKAMP, Klaus DRESING, Oliver J. BOTT

12:00   Visual Assessment of Endemic Nephropathy Markers Relationship
Zdenko SONICKI, Ante CVITKOVIC, Karen L. EDWARDS, Marica MILETIC-MEDVED, Dubravka CVORISCEC, Vladimir BABUS, Bojan JELAKOVIC

12:20   Combination of Visual and Textual Similarity Retrieval from Medical Documents
Ivan EGGEL, Henning MÜLLER

12:40   On Signal Analysis of Three-Dimensional Nystagmus
Martti JUHOLA, Heikki AALTO, Timo HIRVONEN

13:00 LUNCH BREAK & POSTER PRESENTATIONS (see Poster presentation list on Monday, 31 August)

TUESDAY, 1 SEPTEMBER, AFTERNOON

Keynote 5 - CONGRESS HALL
Chair: John MANTAS

14:00   Interoperable Electronic Patient Records for Health Care Improvement
Andrew BALAS (MD, PhD, College of Health Sciences, Old Dominion University, Norfolk, Virginia, U.S.A.)

Track A - CONGRESS HALL

Oral paper session 25: Interoperability

Chairs: Patrick RUCH, Ozren KORDIC

15:00   Biomedical Data Management: A Proposal Framework
Douglas TEODORO, Rémy CHOQUET, Emilie PASCHE, Julien GOBEILL, Christel DANIEL, Patrick RUCH, Christian LOVIS

15:20   Building Interoperable Health Information Systems Using Agent and Workflow Technologies
Vassiliki KOUFI, Flora MALAMATENIOU, George VASSILACOPOULOS

15:40   Development and Validation of Strategies to Test for Interoperability of Virtual Patients
Andrzej A. KONONOWICZ, Jörn HEID, Jeroen DONKERS, Inga HEGE, Luke WOODHAM, Nabil ZARY

16:00   A Semantic Approach for the Homogeneous Identification of Events in Eight Patient Databases: A Contribution to the European eu-ADR Project
Paul AVILLACH, Fleur MOUGIN, Michel JOUBERT, Frantz THIESSARD, Antoine PARIENTE, Jean-Charles DUFOUR, Gianluca TRIFIRÒ, Giovanni POLIMENI, Maria Antonietta CATANIA, Carlo GIAQUINTO, Giampiero MAZZAGLIA, Gianluca BAIO, Ron HERINGS, Rosa GINI, Julia HIPPISLEY-COX, Mariam MOLOKHIA, Lars PEDERSEN, Annie FOURRIER-RÉGLAT, Miriam STURKENBOOM, Marius FIESCHI

Track B - ROOM BOSNA

Oral paper session 26: Usability

Chairs: Kei TERAMOTO, Muhsin VELIC

15:00   An RDF-Based Mediator for Health Data Interoperability
Mu-Hsing KUO, Andre KUSHNIRUK, Elizabeth BORYCKI

15:20   Usability Laboratory as the Last Outpost before Implementation – Lessons Learnt from Testing New Patient Record Functionality
Gry SELAND, Inger Dybdahl SØRBY

15:40   Foundations of a Metadata Repository for Databases of Registers and Trials
Jürgen STAUSBERG, Matthias LÖBE, Philippe VERPLANCKE, Johannes DREPPER, Heinrich HERRE, Markus LÖFFLER

16:00   Inter-Institutional Care Process: Scenarios to Capture Demands for Workflow Support
Berit BRATTHEIM

16:10   Issues on Evaluating the Usability of a Pen-Tablet System Using Server-Based Computing
Kei TERAMOTO, Shigeki KUWATA, Andre W. KUSHNIRUK, Elizabeth M. BORYCKI, Hiroshi KONDOH

Track C - ROOM HERCEGOVINA

Oral paper session 27: Decision support

Chairs: Jana ZVÁROVÁ, Zoran HADZIAHMETOVIC

15:00   Computer-Based Physician Order Entry: Implementation of Clinical Pathways
Mathias TSCHOPP, Magali DESPOND, Damien GRAUSER, Jean-Christophe STAUB, Christian LOVIS

15:20   Clinician Reports of the Impact of Electronic Ordering on an Emergency Department
        Andrew GEORGIOU, Johanna I. WESTBROOK

15:40   Empowering Clinicians by eHealth Technologies in Decision-Making Tasks
        Jana ZVÁROVÁ, Helena HEROUTOVÁ, Hana GRÜNFELDOVÁ, Karel ZVÁRA, David BUCHTELA

16:00   Medintel: Decision Support for General Practitioners: A Case Study
        Christiaan J. BRANDHORST, Danielle SENT, Robert A. STEGWEE, Betsy M.A.G. VAN DIJK

Track D - ROOM CASINO

Oral paper session 28: Imaging and visualization

Chairs: Petra PERNER, Tarik MASIC

15:00   Similarity-Based Motion Tracking of Cells in Microscopic Images
        Horst PERNER, Petra PERNER

15:20   A Data Model for Handling Whole Slide Microscopy Images in Picture Archiving and
        Communications Systems
        Vytenis PUNYS, Arvydas LAURINAVICIUS, Jurate PUNIENE

15:40   Reversible Anonymization of DICOM Images Using Automatically Generated Policies
        *Michael ONKEN, Jörg RIESMEIER, Marcel ENGEL, Adem YABANCI, Bernhard ZABEL, Stefan
        DESPRÉS*

16:00   Tele-Surgery: A New Virtual Tool for Medical Education
        *Thais RUSSOMANO, Ricardo B. CARDOSO, Jefferson FERNANDES, Paulizan G. CARDOSO,
        Jarcedy M. ALVES, Christina D. PIANTA, Hamilton P. SOUZA, Maria Helena I. LOPES*

Track E - ROOM UNA

Workshop 8 (part 2)

15:00   HL7's Comprehensive Standards Set and Its International Collaboration for Enabling
        Semantically Interoperable eHealth and pHealth Solutions
        *Bernd BLOBEL, Catherine CHRONAKI, Robert STEGWEE, Heather GRAIN, William E. HAMMOND,
        Charles JAFFE, Dipak KALRA, Marc KOEHN, Francois MACARY, Alexander MENSE, Edward
        SHEETHAM, Stefan SCHULZ, Michael TAN, and the HL7 Affiliates Council*

Track F - ROOM NERETVA

Workshop 12

15:00   Digital Pathology in Europe: Coordinating Patient Care and Research Efforts
        *Marcial GARCIA ROJO, Vytenis PUNYS, Janina SLODKOWSKA, Thomas SCHRADER, Christel
        DANIEL, Bernd BLOBEL*

Track G - ROOM VRBAS

Workshop 13

15:00   Is There a Common Background to Support Better Healthcare in Central and South East Europe?
        *Lacramioara STOICU-TIVADAR, Bernd BLOBEL, Josipa KERN, Izet MASIC, Gheorghe MIHALAS,
        Andrej OREL, Gyorgy SURJAN, Vesna UROSEVIC*

Track H - ROOM DRINA

Software demonstrations 1&2

15:00   WebCIS (Web Clinical Information System) An Integrated Healthcare Delivery System Built around the Clinical Workflow
Raj GOPALAN

15:40   Health-e-Child – European eHealth Platform for Pediatrics
Joerg FREUND, David MANSET

Software demonstrations 3&4

16:40   ARTool: A Software for the Visualization and Modeling of Atherosclerotic Plaque Development
Antonis I. SAKELLARIOS, Vasilis D. TSAKANIKAS, Lambros K. MICHALIS, Dimitrios I. FOTIADIS

17:20   Similarity Search of Heart Sounds: Software Demonstration and General Perspective
Wolfgang ORTHUBER

Track A - CONGRESS HALL

Oral paper session 29: Interoperability

Chairs: Bernd BLOBEL, Josipa KERN

16:40   Ontology-Driven Health Information Systems Architectures
Bernd BLOBEL, Frank OEMIG

17:00   Semantic Interoperability between Health Communication Standards through Formal Ontologies
Frank OEMIG, Bernd BLOBEL

17:20   Functional Requirements of Terminology Services for Coupling Interface Terminologies to Reference Terminologies
Christel DANIEL, Antoine BUEMI, Laurent MAZUEL, David OUAGNE, Jean CHARLET

17:40   MediCoordination: A Practical Approach to Interoperability in the Swiss Health System
Henning MÜLLER, Michael SCHUMACHER, David GODEL, Abu Khaled OMAR, Francois MOOSER, Sandrine DING

Track B - ROOM BOSNA

Oral paper session 30: Disease management

Chairs: Ragnar NORDBERG, Braco HAJDAREVIC

16:40   Bridging the Gap between Patients' Expectations and General Practitioners' Knowledge through Disease Surveillance
Monika A. JOHANSEN, Jan-Are K. JOHNSEN, Gunnar HARTVIGSEN, Gunnar ELLINGSEN, Johan G. BELLIKA

17:00   Navigation for People with Mild Dementia
Marike HETTINGA, Johannes DE BOER, Eli GOLDBERG, Ferial MOELAERT

17:20   Application of Simple Digital Methods in the Treatment of Hemorrhoid Disease
Braco HAJDAREVIC, Jasmina SLAKU, Haris PANDZA, Nizama SALIHEFENDIC, Zoran HADZIAHMETOVIC

17:40   Towards a Framework for Better Management of Patients with Hypertension
Thusitha MABOTUWANA, Jim WARREN

17:50   A Home-Care PDA-Based Program for the Management of COPD Patients
Tomás TEIJEIRO, Miguel TARASCÓ, Paulo FÉLIX, Jesús María PRESEDO

Track C - ROOM HERCEGOVINA

Oral paper session 31: Privacy and security
Chairs: Simon de LUSIGNAN, Samir DEDOVIC

16:40   Modeling and Enforcing Privacy for Medical Data Disclosure across Europe
Hanene BOUSSI RAHMOUNI, Tony SOLOMONIDES, Marco CASASSA MONT, Simon SHIU

17:00   Centralised versus Decentralised Management of Patients' Medical Records
Catherine QUANTIN, Gouenou COATRIEUX, Maniane FASSA, Vincent BRETON, David-Olivier JAQUET-CHIFFELLE, Paul de VLIEGER, Norbert LYPSZYC, Jean-Yves BOIRE, Christian ROUX, François-André ALLAERT

17:20   Emergency Access to Protected Health Records
Julien KÜNZI, Paul KOSTER, Milan PETKOVIC

17:40   Threats to Information Security of Realtime Disease Surveillance Systems
Eva HENRIKSEN, Monika A. JOHANSEN, Anders BAARDSGAARD, Johan G. BELLIKA

Track D - ROOM CASINO

Oral paper session 32: Learning and education
Chairs: Andre W. KUSHNIRUK, Muharem ZILDZIC

16:40   Bringing Electronic Patient Records into Health Professional Education: Towards an Integrative Framework
Andre W. KUSHNIRUK, Elizabeth M. BORYCKI, Brian ARMSTRONG, Ron JOE, Tony OTTO

17:00   Bringing Electronic Patient Records into Health Professional Education: Software Architecture and Implementation
Ronald S. JOE, Andre W. KUSHNIRUK, Elizabeth M. BORYCKI, Brian ARMSTRONG, Tony OTTO, Kendall HO

17:20   An Investigation of Factors Influencing Healthcare Workers' Use and Acceptance of E-Learning in Post-School Healthcare Education
Marius MIKALSEN, Ståle WALDERHAUG

17:40   Quality Assessment of Medical Education and Use of Information Technology
Izet MASIC, Damir CIRIC, Artan PULJA, Igor KULASIN, Haris PANDZA

Keynote 6 - CONGRESS HALL
Chair: Klaus-Peter ADLASSNIG

18:15   Clinical Decision Support
Blackford MIDDLETON (MD, MPH, MSC, Clinical Informatics R&D, Center for IT Leadership, Partners Healthcare, Wellesley, U.S.A.)

WEDNESDAY, 2 SEPTEMBER, MORNING & AFTERNOON

Keynote 7 - CONGRESS HALL

Chair: Blackford MIDDLETON

9:00 Computer-Based Medical Guidelines and Protocols: Current Trends
Silvia MIKSCH (Univ.Prof., Ph.D., Danube University Krems, Department of Information and Knowledge Engineering (ike), Austria)

Track A - CONGRESS HALL

Oral paper session 33: Ontologies

Chairs: Stefan SCHULZ, Lejla ZUNIC

10:00 Relationship Groups in SNOMED CT
Ronald CORNET, Stefan SCHULZ

10:20 Automatic Mapping of Clinical Documentation to SNOMED CT
Holger STENZHORN, Edson José PACHECO, Percy NOHAMA, Stefan SCHULZ

10:40 Projection and Inheritance of SNOMED CT Relations between MeSH Terms
Tayeb MERABTI, Catherine LETORD, Hocine ABDOUNE, Thierry LECROQ, Michel JOUBERT, Stéfan J. DARMONI

11:00 Optimization of the PubMed Automatic Term Mapping
Benoit THIRION, Ioana ROBU, Stefan J. DARMONI

Track B - ROOM BOSNA

Oral paper session 34: Telemedicine

Chairs: Silvana QUAGLINI, Igor KULASIN

10:00 A Knowledge Model Driven Solution for Web-Based Telemedicine Applications
Ebrahim NAGEBA, Jocelyne FAYN, Paul RUBEL

10:20 Rural Telemedicine Networks Using Store-and-Forward Voice-over-IP
Jeremiah SCHOLL, Lambros LAMBRINOS, Anders LINDGREN

10:40 An Automated Voice Response System for Anticoagulant Therapy Management
Silvana QUAGLINI, Toni GIORGINO, Lina M. ROJAS-BARAHONA, Ezio CAFFI, Mauro DE VITO, Alessandra PERSICO, Anna CAVALLINI

11:00 Remote Diagnosis of Children Dental Problems Based on Non-Invasive Photographs – A Valid Proceeding?
Rui AMÁVEL, Ricardo CRUZ-CORREIA, José FRIAS-BULHOSA

Track C - ROOM HERCEGOVINA

Oral paper session 35: Privacy and security

Chairs: Michael SPITZER, Suad SIVIC

10:00 Visualizing Patient Trajectories on Wall-Mounted Boards – Information Security Challenges
Arild FAXVAAG, Lillian RØSTAD, Inger A. TØNDEL, Andreas R. SEIM, Pieter J. TOUSSAINT

10:20   Requirements for Radio Frequency Identification in Healthcare
        Antti LAHTELA, Marko HASSINEN

10:40   Authentication and Encryption in the Snow Disease Surveillance Network
        Johan Gustav BELLIKA, Lars ILEBREKKE, Per Atle BAKKEVOLL, Håvard JOHANSEN, Jeremiah SCHOLL, Monika Alise JOHANSEN

11:00   Securing a Web-Based Teleradiology Platform According to German Law and "Best Practices"
        Michael SPITZER, Tobias ULLRICH, Frank UECKERT

Track D - ROOM CASINO

Oral paper session 36: Learning and education
        Chairs: Pierre LE BEUX, Zlatko HRGOVIC

10:00   Challenges and Opportunities of Using Recommender Systems for Personalized Health Education
        Luis FERNANDEZ-LUQUE, Randi KARLSEN, Lars K. VOGNILD

10:20   E-Learning to Train Staff in Danish Hospitals – Three Genres of E-Learning
        Ann BYGHOLM

10:40   Novice Nurse Information Needs in Paper and Hybrid Electronic-Paper Environments: A Qualitative Analysis
        Elizabeth M. BORYCKI , Louise LEMIEUX-CHARLES, Lynn NAGLE, Gunther EYSENBACH

11:00   E-Learning for Nurse Continuous Education
        Maria FRANCHI, Ines GIORGI, Carla ROGNONI, Edda CAPODAGLIO, Giacomo BAZZINI, Christine BROUGHTON, M.Cristina MAZZOLENI

11:10   Improvement of Knowledge and Practical Skills in Venipuncture through Web-Based Training
        Boris BODELLE, Andreas SZIEGOLEIT

Track E - ROOM UNA

Workshop 14

10:00   Archetype-Based Knowledge Management for Semantic Interoperability of Electronic Health Records
        Sebastian GARDE, Rong CHEN, Heather LESLIE, Thomas BEALE, Ian McNICOLL, Sam HEARD

Track F - ROOM NERETVA

Workshop 15

10:00   Portable Devices, Sensors and Networks: Wireless Personalized eHealth Services
        Peter PHAROW, Bernd BLOBEL, Pekka RUOTSALAINEN, Françoise PETERSEN, Asbjorn HOVSTO

Track G - ROOM VRBAS

Workshop 16

10:00   Using an Open Source Observational Tool to Measure the Influence of the Doctor's Consulting Style and the Computer System on the Outcomes of the Clinical Consultation
        Simon DE LUSIGNAN, Pushpa KUMARAPELI, Safia DEBAR, Andre W. KUSHNIRUK, Chris PEARCE

Track A - CONGRESS HALL

Oral paper session 37: Ontologies and standards

Chairs: Anand KUMAR, Haris HUSEINAGIC

11:40   A Reference Set of SNOMED Terms for the Structured Representation of Respiratory Disorders of the Newborn Infant
Andrew G. JAMES, Eugene NG, Prakesh S. SHAH

12:00   Methods for Testing SNOMED CT in a Defined Clinical Domain
Anne RANDORFF RASMUSSEN, Dorte MARKUSSEN

12:10   HL7 Template Model and EN/ISO 13606 Archetype Object Model – A Comparison
Karl BOINTNER, Georg DUFTSCHMID

12:20   Comparing the Apgar Score Representation in HL7 and OpenEHR Formalisms
Marc CUGGIA, Sahar BAYAT, Delphine ROSSILLE, Patrice POULAIN, Patrick PLADYS, Hélène ROBERT, Régis DUVAUFERRIER

12:30   Using the CEN/ISO Standard for Categorial Structure to Harmonise the Development of WHO International Terminologies
Jean M. RODRIGUES, Anand KUMAR, Cédric BOUSQUET, Béatrice TROMBERT

Track B - ROOM BOSNA

Oral paper session 38: Devices and sensors

Chairs: Alexander HORSCH, Enra SULJIC-MEHMEDIKA

11:40   Measuring Physical Activity with Sensors: A Qualitative Study
André DIAS, Bernhard FISTERER, Gregor LAMLA, Klaus KUHN, Gunnar HARTVIGSEN, Alexander HORSCH

12:00   Representing Sensor Data Using the HL7 CDA Personal Healthcare Monitoring Report Draft
Klaus-Hendrik WOLF, Stephan SCHIRMER, Michael MARSCHOLLEK, Reinhold HAUX

12:20   Monitoring Driver's Sleepiness On-Board for Preventing Road Accidents
Christos PAPADELIS, Chrysa LITHARI, Chrysoula KOURTIDOU-PAPADELI, Panagiotis D. BAMIDIS, Evangelia PORTOULI, Evangelos BEKIARIS

12:40   Clinical Implications of a Quality Assessment of Transcutaneous CO_2 Monitoring in Preterm Infants in Neonatal Intensive Care
Ole K. HEJLESEN, Simon Lebech CICHOSZ, Steffen VANGSGAARD, Mikkel Frank ANDRESEN, Lars Peter MADSEN

Track C - ROOM HERCEGOVINA

Oral paper session 39: Privacy and security

Chairs: Pekka ROUTSALAINEN, Besim PRNJAVORAC

11:40   Testing Tactics to Localize De-Identification
Cyril GROUIN, Arnaud ROSIER, Olivier DAMERON, Pierre ZWEIGENBAUM

12:00   Computer-Mediated Mobile Messaging as Collaboration Support for Nurses
Peter KARPATI, Pieter Jelle TOUSSAINT, Øystein NYTRØ

12:20   Collection and Sharing of Information on Patient Safety Education and Training in Europe
        Dimitris ZIKOS, Joseph LIASKOS, Marianna DIOMIDOUS, John MANTAS

12:40   Patient Education on Safety and Privacy
        Tatjana WELZER, Marko HÖLBL, Marjan DRUZOVEC, Aida KAMISALIC, Ana HABJANIC

Track D - ROOM CASINO

Oral paper session 40: Learning and education

Chairs: George I. MIHALAS, Zikrija AVDAGIC

11:40   Usage and Effectiveness of E-Learning Courses for Continuous Medical Education
        *M. Cristina MAZZOLENI, Carla ROGNONI, Enrico FINOZZI, Ines GIORGI, Franco PUGLIESE, Mauro
        LANDRO, Marcello IMBRIANI*

12:00   Computer Laboratory in Medical Education for Medical Students
        Mira HERCIGONJA-SZEKERES, Darko MARINOVIC, Josipa KERN

12:20   An ECG Analysis Interactive Training System for Understanding Arrhythmias
        *Yvon LESSARD, Jean-Paul SINTEFF, Pridi SIREGAR, Nathalie JULEN, Frédéric HANNOUCHE,
        Stéphane RIO, Pierre LE BEUX*

12:40   Towards the Integration of Medical Informatics Education for Clinicians into the Medical
        Curriculum
        Diana LUNGEANU, Rochelle E. TRACTENBERG, Otilia S. BERSAN, George I. MIHALAS

BHSMI **SPECIAL TRACK**

SOCIETY FOR MEDICAL INFORMATICS OF BOSNIA AND HERZEGOVINA (BHSMI) IN COOPERATION WITH ITALIAN ASSOCIATION OF TELEMEDICINE AND MEDICAL INFORMATICS (@ITIM) AND INTERNATIONAL SOCIETY FOR TELEMEDICINE AND EHEALTH (ISFTEH)

E-health and Telemedicine to Support Scientific Cooperation Between Adriatic and Balkan Countries

CONGRESS HALL   **SUNDAY, 30 AUGUST 09:00 – 17:00**

Part 1 (morning)		
08:00 – 09:00	Registration	
09:00	Chairs: Izet Masic, Francisco Sicurello, Asim Kurjak	Opening of the Special Track
09:00 – 09:20	Francesco Sicurello	Towards E-cooperation and E-inclusion Between Countries by Health Network and Telemedicine
09:20 – 09:40	Malina Jordanova, Frank Lievens	Telemedicine: International Cooperation and the Regional Approach
09:40 – 10:00	Zekerijah Sabanovic, Izet Masic, Nizama Salihefendic, Muharem Zildzic, Lejla Zunic, Samir Dedovic	E-Health in Bosnia and Herzegovina – starting from the ground up
10:00 – 10:20	Discussion	
10:20 – 10:40	Coffee Break	
10:40 – 11:00	Asim Kurjak	Development of Telemedicine in Croatia
11:00 – 11:20	Hans-Jorg Seeburger	Experience Healthcare IT Firsthand
11:20 – 11:40	Salih Valjevac, Zoran Ridjanovic, Izet Masic	Computer-Based Program for Quality Assesment of Family Medicine Teams Based on Accreditation Standards
11:40 – 12:00	Miroslav Koncar	ICT Solutions in Support of Chronic Disease Management
12:00 – 12:20	Fredrik Linden	epSOS Local Data Providers
12:20 – 13:00	Discussion	
13:00 – 14:00	Lunch Break	
Part 2 (afternoon)		
14:00 – 14:20	Dragica Milinkic	Medical Director Software Package for General Practitioners - Australian Experience
14:20 – 14:40	Zoran Gajic, Sonja Sipka, Jacob Bergsland, Ozren Kordic, Milan Mandic, Danijel Pajic	Patient Empowerment through eHealth Portal in Bosnia and Herzegovina
14:40 – 15:00	Ennio Amori, Paride Lambertini, Matteo Berghenti	Evolvability of Medical Imaging Networking to the Hospital Information System
15:00 – 15:20	Frano Mika	E-Health in an international Oil and Gas Company - Saipem's experience
15:20 – 15:40	Coffee Break	
15:40 – 16:00	Aldo Franco Dragoni	Stable Communities and Social Networking for the NetMedicine of Tomorrow (or Today)
16:00 – 16:20	Giuseppe Tritto	ICT and Science: initiatives for peace in Balkan area and the Space for Science Project
16:20 – 17:00	Final Discussion and Remarks	

EUROREC CONFERENCE 2009

September 1st, 2009. The Conference is organised around 4 topics with for each topic two or three introductory speakers and a debate.

Tuesday, 1 September 09:00 – 18:00

TRACK I - ROOM NIGHT CLUB

08:30 – 09:00	Registration	
Theme 1: Re-use of Clinical Care and of Clinical Trial Data		
09:00 – 09:15	Georges De Moor, EuroRec, Belgium	Current and Future Initiatives of EuroRec
09:15 – 09:40	Elaine Sawatsky, Canada	Health System Use of Data: Secondary but Important.
09:40 – 10:00	Selina Sibbald, Quintiles, United Kingdom	Re-use of clinical care and of clinical trial data. A CRO point of view.
10:00 – 10:20	Andreas Schmidt, Hoffman-La Roche, Switzerland (TBC)	The possible impact of the re-use of EHR data. A point of view from the pharma industry.
10:20 – 10:50	Discussion	
10:50 – 11:30	Break	
Theme 2: Personal Health Systems, Personal Electronic Health Records and Professional Electronic Healthcare Records		
11:30 – 12:00	Laurent Debenedetti – GIP-DMP, France	Re-launching the French national project 'DMP – Dossier Médical Personnel' based on lessons learnt, local engagement and Concertation.
12:00 – 12:20	Discussion	
13:00 – 14:00	Lunch Break	
Theme 3: Towards Interoperability through Quality Labelling and Certification		
14:00 – 14:20	Jos Devlies, EuroRec, Belgium	The EuroRec Seal 2010
14:20 – 14:40	Richard Perkins, eClinical Forum, France	EHR-CR, EHR compliant to clinical trial requirements.
14:40 – 15:10	Discussion	
15:10 – 15:40	Break	
Theme 4: Semantic Interoperability: Terminologies and Classifications, Ontologies, Artefacts and Templates		
15:40 – 16:10	Ceusters Werner, Buffalo University, USA	Post-hoc interpretation of mutually incoherent information models: the role and benefits of realism-based ontology.
16:10 – 16:40	Dipak Kalra, University College London, United Kingdom	The contribution of archetypes towards semantic interoperability within national eHealth programmes.
16:40 – 17:30	Ilias Iakovidis, Commission, Europe Georges De Moor, EuroRec, Belgium	Debate and Conclusions

PRESENTATIONS AND INSTRUCTIONS

FULL PAPER ORAL PRESENTATIONS

15 minutes for presentation and 5 minutes for discussion.

STUDENT PAPERS ORAL PRESENTATIONS

7 minutes for presentation and 3 minutes for discussion.

OTHER INFORMATION

Posters will be continually on display in the poster area outside the lecture rooms all day Monday and Tuesday. Authors present from 13:00 to 14:00. Poster format size is A0 (841×1189 mm).

Tutorials are dedicated to in-depth treatment and comprehensive overview of topics related to the conference. MIE 2009 tutorials take place only on Sunday as shown at WWW.MIE2009.ORG and in the program schedule.

Workshops will take place during the MIE 2009 conference on subjects related to conference topics or to activities of EFMI and its Working Groups. The workshops will be held from Monday August 31st to Wednesday, September 2nd. See the program schedule.

SPEAKER'S INSTRUCTION

Each speaker is responsible to bring the presentation to the Speaker-Ready Room (ROOM NERETVICA) half a day in advance. USB memory keys and CD-ROMs are recommended supports.

SESSION CHAIR INSTRUCTIONS

The chairperson will be present 10 minutes before the session in the specified room, along with a staff technician. He/she will check that all the slide presentations have been properly loaded before the scheduled start of the session. He/she will inquire with each author about any problem or change about the presentation. He/she will confirm the time allocation and will invite the authors to strictly follow the recommendations.

Time allocation is defined in the final program of the conference. In case of absence of an author, the chairperson decides alone of an adequate alternate timing of the session. The chairperson leads the session alone.

Time schedule should be strictly followed.

The chairperson is responsible to designate one of the long oral presentations of his/her session as a candidate for publication in a special issue Methods of Information in Medicine, an official journal of the European Federation of Medical Informatics (EFMI). A dedicated form has been prepared for this.

Exceptionally, he/she can designate zero or two candidates. The criteria for selection are the usual criteria of quality for an international journal and the interest, which has been demonstrated by the author during his/her presentation. The form is available and given back at the registration desk.

CONFERENCE SECRETARIATS

LOCAL ORGANISING COMMITTEE

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VENUE

Holiday Inn Sarajevo, Bosnia and Herzegovina.

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Exhibition space is available. Please contact our Technical Organiser (Promotours).

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London, United Kingdom, 2008
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Athens,Greece, 2005

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Bucharest, Romania, 2001

PAST MIE CONFERENCES

Gothenburg, Sweden, 2008
Maastricht, Netherland, 2006
Geneva, Switzerland, 2005
Saint Malo, France, 2003
Budapest, Hungary, 2002
Hannover, Germany, 2000
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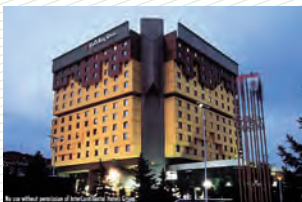Fax: +387 (0)33 580 580
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Daily: 30 Aug 2009 - 02 Sep 2009

Hours: 17:00 – 19:00

Meeting at 16:55 in front of Holiday Inn Hotel

TOUR INCLUDES:

ENGLISH SPEAKING GUIDE, SIGHTSEEING TICKETS

HALF DAY SIGHTSEEING WAR TOUR OF SARAJEVO

Daily: 30 Aug 2009 - 02 Sep 2009

Hours: 08:30–12:30

Meeting at 08:25 in front of Holiday Inn Hotel

TOUR INCLUDES:

ENGLISH SPEAKING GUIDE, TRANSFER, PANORAMIC TOUR, VISIT TO THE TUNEL

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DEPARTURES: 01 Sep 2009 and 02 Sep 2009

Hours: 07:45- 16:00

Meeting at 07:40 in front of Holiday Inn Hotel

TOUR INCLUDES:

ALL INCLUSIVE (ENGLISH SPEAKING GUIDE, TRANSFER, RAFTING, CERTIFIED SKIPPERS, BREAKFAST)

FULL DAY TOUR: SARAJEVO – MOSTAR – POCITELJ – MEDJUGORJE – KRAVICE – SARAJEVO

Only one departure: 31 Aug 2009

Hours: 07:30-21:00

Meeting at 07:25 in front of Holiday Inn Hotel

TOUR INCLUDES:

ENGLISH SPEAKING GUIDE, TRANSFER, LUNCH, SIGHTSEEING TICKETS

More information available at Promotours information desk in the hotel lobby.

KEYNOTE SPEAKERS

Prof Gjuro Dezelic, PhD

Professor Gjuro Dezelic PhD is a pioneer of medical informatics in former Yugoslavia, founder of the Croatian Society for Medical Informatics, its first president, and now honorary president of CSMI. He initiated the formation of the Yugoslav Association for Medical Informatics in 1989 as a free union of independent national medical informatics societies of Yugoslav republics, becoming YAMI´s president and realizing 1990 its membership in EFMI and IMIA. After the decay of the former state, YAMI was dissolved and Dezelic initiated that its member societies join EFMI and IMIA. Gjuro Dezelic served as unofficial Yugoslav observer to EFMI from 1978, as official observer from 1987, and from 1990 (after YAMI´s establishment) as full member of EFMI Council (representing YAMI until 1991, and CSMI from 1992). After being called to join the Croatian diplomacy as ambassador to Denmark in 1993, he ceased his membership in EFMI Council in 1994.

After graduating 1978 and acquiring 1960 the PhD in physical chemistry at the School of Science, University of Zagreb, Gjuro Dezelic started his academic career at the Andrija Štampar School of Public Health, Medical School, University of Zagreb. During his postdoctoral fellowship, spent 1965/66 in the USA at the Indiana University in Bloomington, he started to apply computers in his research. Returning to Zagreb he started with first lectures on medical computing and cybernetics to postgraduate students at the Medical School. In 1970/71, following his initiative, medical informatics was introduced as a compulsory one-semester course for medical students, and he was the first lecturer. Being appointed 1975 full professor of medical informatics at the Zagreb Medical School, he retired in 2000. On his proposal, the Zagreb Medical School, in cooperation with several schools of the Zagreb University, started in 1984 the Postgraduate study on Health Information Systems, attended by physicians, dentists and pharmacists, as well as other professions (economists, engineers, etc.) working in health institutions, being its first head. This study proved to be an important factor in the education of medical informatics professionals in the country.

During his academic career Gjuro Dezelic taught medical informatics as guest-professor at many universities and health institutions in Croatia and former Yugoslavia (Rijeka, Split, Osijek, Ljubljana, Maribor, Sarajevo, Skopje). He published over 100 medical informatics papers, mainly in the field of databases, information systems, modeling and simulation, medical decision making, CAI, and medical informatics teaching. He is the author of first Croatian medical informatics textbooks. After retirement his attention was focused to the problems of standardization in medical informatics, becoming one of the initiators of the HL7 Croatia International Affiliate (established 2002) and serving as its first chairman until 2008.

Dr. Gerard Comyn (59) is Acting Director of the Directorate for Information and Communication Technologies (ICT) for Citizens an Businesses in the Directorate General for Information Society and Media in the European Commission. He is also head of the unit on ICT for Health. Before joining the European Commission, he was managing director of the European Computer Industry Research Center (ECRC) in Munich, and was also a Professor at the University of Lille. Comyn hold a Master's Degree in Applied Mathematics and a PhD in Computer Science

Prof Gerard Comyn, PhD

William Ed Hammond is Professor-emeritus, Department of Community and Family Medicine and Professor-emeritus, Department of Biomedical Engineering, Duke University and Adjunct Professor in the Fuqua School of Business at Duke University. He is a Past President of the American Medical Informatics Association (AMIA). He is in his third term as Chair of Health Level 7; he is Co-chair of the Advisory Council; and co-chair of the Clinical Interoperability Council.

He was Chair of the Data Standards Working Group of the Connecting for Health Public-Private Consortium. Dr. Hammond was a member of the IOM Committee on Patient Safety Data Standards and a member of the Panel for the evaluation of ONC. He served as President of the American College of Medical Informatics and as Chair of the Computer-based Patient Record Institute. He served as the Convenor of ISO Technical Committee 215, Working Group 2 for 6 years and is currently ISO TC 215's Ambassador to Developing Countries. He is chair of the ISO/CEN/HL7/CDISC/IHTSDO Joint Initiative Council. He is a founding fellow of ACMI and a founding fellow of AIMBE.

He was a member of the National Library of Medicine's Long Range Planning Committee (2006) and a member of the Healthcare Information Technology Advisory Panel of the Joint Commission on Accreditation of Healthcare Organizations (2006). He was an advisor to the American Hospital Association Information Technology Standards Initiative Strategy Committee and a member of the Tolven Institute Governing Board. Dr. Hammond was awarded the Paul Ellwood Lifetime Achievement Award in 2003 and the ACMI Morris F. Collen Award of Excellence in November 2003. He has published over 350 technical articles.

Prof William Edward Hammond, MD, PhD

Prof Reinhold Haux, PhD

Prof. Reinhold Haux is currently President the International Medical Informatics Association (IMIA) and editor of the IMIA Yearbook of Medical Informatics and of the journal Methods of Information in Medicine.

Prof. Reinhold Haux is also: the director of the Peter L. Reichertz Institute for Medical Informatics of TU Braunschweig and Hannover Medical School (since 2007); full professor of medical informatics, Department of Computer Science, and director of the Institute for Medical Informatics, University of Braunschweig – Institute of Technology (TU Braunschweig), Germany (since 2004); adjunct professor at the Faculty for Medical Informatics at Hannover Medical School (since 2008); adjunct professor at the Faculty for Medical Informatics of UMIT, Austria (since 2004); adjunct professor of medical informatics, Medical Faculty of the University of Heidelberg, Germany (since 2002).

Prof. Reinhold Haux previously held the following positions: associate professor of medical informatics, Medical Faculty, University of Tuebingen, Germany; 1989 - 2001 full professor of medical informatics, Medical Faculty, and director of the Department; of Medical Informatics, University of Heidelberg, Germany; 2001 - 2004 full professor of medical informatics at the University for Health Sciences, Medical Informatics and Technology (UMIT) at Innsbruck, later Hall, Austria, rector (president) of UMIT and director of the Institute of Health Information Systems.

Prof. Mordechai Shani holds an M.D. degree from Hadassah Medical School at the Hebrew University of Jerusalem, and is a Professor of Medicine and a Professor of Health Systems Management at Tel Aviv University.

Prof. Shani is one of Israel's most prominent figures in the public health arena and has extensive clinical and academic experience. For 33 years he served as Director General of Sheba Medical Center, the biggest Medical Center in the Middle East. During this period he also served twice as the Director General of the Israeli Ministry of Health.

He was also the founder and director of the Kovens Health Systems Management Center and The School of Public Health at the Tel Aviv University. He acts as chairman and advisor in a wide array of national and international health organizations and scientific organizations. In 2009 he was awarded the Israel Prize for Lifetime Achievement – Special Contribution to Society and to the Country.

Prof Mordechai Shani, MD, PhD

Andrew Balas serves as the Dean of the College of Health Sciences and tenured Professor at Old Dominion University in Norfolk, Virginia. His expertise includes development of policy priorities for the production of new scientific knowledge responsive to societal needs and application of advanced digital technologies for transferring research to practice. He is member of the Board of Directors of the Virginia Business Coalition on Health, Friends of the National Library of Medicine, American Red Cross of Southeastern Virginia and the leadership Council of the national eHealth Initiative. He is an elected member of the American College of Medical Informatics and the European Academy of Sciences and Arts.

Andrew Balas has been effective in taking on the status quo fighting for progress in public health through better access to scientific discoveries. His studies about delay and waste in the transfer research results to health care are often cited as reference points in policy initiatives. As a Congressional Fellow working for the Public Health and Safety Subcommittee of the United States Senate, he drafted the Healthcare Quality Enhancement Act of 1999 that, among others, first achieved government action on reducing errors in health care and was signed into federal law by the President (Dec. 6, 1999). His academic credentials include over 100 publications, externally funded research in excess of 10 million dollar and publications that cumulatively attracted thousands of citations. Andrew Balas obtained degrees in medicine, medical informatics (Ph.D.), and applied mathematics. He appreciates minority cultures and is an active marathon runner.

Prof Andrew Balas, MD, PhD

Prof Rolf Ewers, MD, DDS, PhD

Chairman and Head of the University Hospital of Cranio Maxillofacial and Oral Surgery of the Medical School, University of Vienna, Austria; Chairman, 17 th International Conference on Oral & Maxillofacial Surgery, Vienna, Austria, August 2005; Oral & Maxillofacial Surgery Foundation Resarch Recognition Award 2005 of the Oral and Maxillofacial Surgery Association; Mercur-Award 2006 for Processinnovation for CMF-Institute of Cranio Maxillofacial and Oral Rehabilitation (Rolf Ewers) for 3D- Implantatnavigation and Telenavigationkonsultation from the Austrian Federal Economic Chamber of Vienna; Bestowal of a decoration of the "Meritul Sanitar" in the rank "Comandor" for the medical and cultural mertis between Austria and Rumania, granted from the President of Rumania 2008;

Main interests: Traumatology, Reconstructive Oral, Maxillofacial and Craniofacial Surgery, Preprosthetic Surgery and Implantology, Microsurgery in the field of Cranio-Maxillofacial and Oral Surgery, investigation of bone replacement material with porous hydroxyapatite material, bone inductive proteins and bioengineered bone production. Inventor of the porous hydroxyapatite material Algipore®, development of 3-D-reconstruction models by means of stereolithography and first clinical use of an intraoperative navigation system by means of the augmented reality and clinical implementation of the VPS-Virtual Patient System with Telesurgery.

KEYNOTE **SPEAKERS**

Blackford Middleton is Corporate Director of Clinical Informatics Research & Development (CIRD), and Chairman of the Center for Information Technology Leadership (CITL) at Partners Healthcare System, and Assistant Professor of Medicine at Brigham and Women's Hospital, Harvard Medical School, and of Health Policy and Management at the Harvard School of Public Health.

As Corporate Director for CIRD Partners Clinical Informatics Research & Development, he leads the development of Partners enterprise clinical systems strategy, software product management for the Partners EMR, patient portal, enterprise clinical decision support and knowledge management services, supports enterprise clinical systems strategy development, and conducts clinical informatics research. He was a co-founder of CITL at Partners in early 2002.

Dr. Middleton was appointed by DHHS Secretary Mike Leavitt to serve on the National Committee of Vital and Health Statistics (NCHVS) in 2008, and served on the American Health Information Community (AHIC) EHR Breakthrough Workgroup, and the AHIC2.0 (National eHealth Collaborative) Planning Group. He serves also on the Board of Stewardship Trustees for the Catholic Health Initiatives health system, the Advisory Boards for Intercomponentware, Inc., and the Medical Knowledge Institute, the Steering Committee of Connecting for Health at the Markle Foundation, the National Advisory Committee for the Robert Wood Johnson Aligning Forces for Quality program, and several Editorial Boards.

Prof Blackford Middleton, MD, PhD

Prof Silvia Miksch, PhD

Silvia Miksch is University Professor and head of the Department of Information and Knowledge Engineering (ike) at the Danube-University Krems, Austria. Since 1998 she is head of the Information and Knowledge Engineering research group (IEG), Institute of Software Technology and Interactive Systems (ISIS), Vienna University of Technology. She was scientific researcher at the Austrian Research Institute for Artificial Intelligence (ÖFAI), post-graduate research fellow at Knowledge System Laboratory (KSL), Stanford University, CA, USA, Visiting/Guest Professor at the Otto-von-Guericke University Magdeburg, Visiting/Guest Professor at the Johannes Kepler University Linz, Austria, and scientific advisor of the Smart Agent Technologies (SAT) studio, Research Studios Austria, a department of the ARC Seibersdorf research GmbH. She acquired and led several national and international research projects, served on various program committees of international scientific conferences, Master and PhD committees, and has published more than 190 scientific publications (journals and conference contributions, contributions in books, and books).

Her main research interests include Information Visualization and Visual Analytics (in particular Focus&Context and Interaction techniques), Plan Management, and Evaluation of Knowledge-Based Systems, Real-World Environments (for more information see http://www.donau-uni.ac.at/ike).

MIE
S A R A J E V O
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