

INTEGRATED
DIAGNOSTICS
AND MASSIVE
COMPUTING
CONVERGENCE
OF MEDICAL
IMAGING,
LABORATORY
TESTS AND
IT-SOLUTIONS



9th Biennial Symposium
of the International
Society for Strategic
Studies in Radiology

IS³R
2011

Dubrovnik/Croatia
August 25–27, 2011

Scientific Program

IS³R 2011
9TH BIENNIAL
SYMPOSIUM
INTEGRATED
DIAGNOSTICS
AND MASSIVE
COMPUTING
CONVERGENCE
OF MEDICAL
IMAGING,
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TESTS AND
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www.is3r.org

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LETTER FROM THE PRESIDENT



Dear colleagues,

I warmly welcome you to our 9th Biennial International Symposium on behalf of the Executive Board of the International Society for Strategic Studies in Radiology. Enclosed are an introduction by the Program Chairman, Dr. Gabriel P. Krestin, and the program for our meeting.

I am confident that you will find this meeting a superb opportunity to connect with other international leaders in imaging science and discuss the future of radiology. The theme of this year's meeting, "Integrated Diagnostics and Massive Computing," is a natural extension of our previous discussion of "P4 Medicine."

As we are all aware, the coordination of this meeting would not have been possible without the outstanding support of our partners and sponsors. Our sponsors' participation in these symposia is vital to promoting fresh dialogue in our field. A list of our sponsors is included on the final page of this program.

At the close of my tenure, I would like to express my gratitude for the contributions made by the IS³R Executive Board, Officers, and management staff. In particular, I thank the Chair of the Program Committee, Gabriel Krestin and the entire Committee for composing an outstanding meeting program. Further, I would like to acknowledge the Society's partnership with ECR GmbH and ACR. Specifically, I thank Monika Hierath, Szilvia Csóka, and Peter Baierl from ECR, and Pam Mechler and Harvey Neiman from ACR. Our joint strategic efforts have led IS³R to solidify its foundation for future success and growth and fulfill its mission.

Lastly, I would like to offer my congratulations to Hedvig Hricak, MD, PhD, as she assumes her role as IS³R President. I am sure the Society will benefit immensely from her leadership and the experience she has gained at Sloan-Kettering Cancer Center NY and during her recent tenure as President of the RSNA.

I look forward to welcoming you in person to our meeting in Dubrovnik.

A handwritten signature in black ink, appearing to read "C. Herold".

Christian J. Herold, MD
President IS³R

LETTER FROM THE PROGRAM CHAIRMAN



Dear colleagues, dear participants,

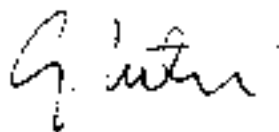
On behalf of the Program Planning Committee, I am pleased to welcome you to our 9th Biennial Symposium on August 25–27, 2011 in Dubrovnik, Croatia. I hope that both program and venue will be instrumental in continuing with the almost 20-year tradition of highly productive, inspiring, and timely exchange of ideas between key opinion leaders from our profession and captains of industry.

This year's meeting has been centered around the topic "Integrated Diagnostics and Massive Computing". I am grateful to the members of the Program Planning Committee and particularly to Jim Thrall for suggesting this theme, as the convergence of medical imaging and laboratory diagnostics with the use of present and future IT-solutions has not only been propagated by industry but is increasingly penetrating our daily practice and our organizational structures. Therefore I think it is more than appropriate to brainstorm on the consequences, opportunities, and challenges that this development brings about for the discipline of imaging. Three main sessions of our meeting will be dedicated to different aspects of this main topic and will be accompanied by outstanding keynote presentations given by some of our distinguished members and guests.

In order to intensify the discussion, some dedicated break-out sessions will tackle "hot" strategic issues in medical imaging. Two special focus sessions will be dedicated to the future role of radiologists in image-guided therapy and to the emerging challenges in biomedical publication. Ample discussion time has been allocated after each session and highly qualified and motivated moderators and panelists have been invited to attend. Two medical writers will be present to record meeting outcomes, which will be disseminated to our colleagues, policy makers, and administrators.

I would like to thank our President, Dr. Christian Herold, and our President-Elect, Dr. Hedi Hricak, for their continuous support and guidance. Most of the work of organizing this symposium was shared among the three of us, and I am particularly grateful to Hedi who made it possible to organize the meeting in such a spectacular venue. We also appreciate the generous support of our corporate members. Last but not least, I would like to thank all the invited speakers, moderators, reporters, and panelists for their invaluable contributions. It is their input that will hopefully make this meeting a success.

But more than anything, I wish you all a very fruitful interaction with old friends and new colleagues.



Gabriel P. Krestin, MD, PhD
Chair of the Program Committee

2011 Committees

PROGRAM COMMITTEE

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Kazuro Sugimura (Kobe/JP)

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Ranka Štern-Padovan (Zagreb/HR)

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Sachio Kuribayashi (Tokyo/JP)

Hans Ringertz (Linköping/SE)

Mission of IS³R

The International Society for Strategic Studies in Radiology is a non-political, not-for-profit organization whose purpose is to define and investigate strategic, scientific and economic issues of global importance to the field of radiology. The society aims to foresee national and global developments in radiology and allied fields, and to strategically communicate important issues to radiologists, physicians in other medical fields, industry and governments. By forming a strategic partnership with industry, in order to define important and relevant fields of cooperation for the successful future of both partners, IS³R hopes to envision schema for actively influencing research, clinical practice and teaching now and in the future, and to prepare radiologists, their partners, and their clients for future developments. The society aims to influence the flow of capital and investment into the most scientific and strategic fields, and to influence health care politics for the benefit of radiology, its patients and customers.

Committees

PUBLICATION & EDITORIAL COMMITTEE

Chair

James H. Thrall (Boston/US)

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Members

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Luis Donoso (Barcelona/ES)

Ricardo Garcia-Monaco (Buenos Aires/AR)

Gary Glazer (Stanford/US)

Christian J. Herold (Vienna/AT) – ex officio

James H. Thrall (Boston/US)

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Gustav K. von Schulthess (Zurich/CH)

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Members

Christian J. Herold (Vienna/AT) – ex officio

Hans Ringertz (Linköping/SE)

Kazuro Sugimura (Kobe/JP)

PROGRAM OVERVIEW

Thursday, August 25*

- 07:30 Registration
08:15 Welcome and Opening
-
- 08:45 **KEYNOTE LECTURE**
What will be new in imaging the coming 5 years?
- 09:30 **PANEL DISCUSSION**
The future of imaging
-
- 10:30 Coffee Break
-
- 11:00 **TOPIC I**
What is integrated diagnostics?
-
- 13:00 Lunch Break
-
- 14:00 **TOPIC I PANEL DISCUSSION**
- 15:00 **BREAKOUT SESSION I**
Conflicts of interest in public-private partnerships
- 15:00 **BREAK OUT SESSION II**
Room Lavandula 2
Radiation exposure: challenges, responsibilities and conflicts
-
- 16:30 Coffee Break
-
- 17:00 **BREAKOUT SESSION III**
Need for new regulatory processes
- 17:00 **BREAKOUT SESSION IV**
Room Lavandula 2
Industrialized imaging
-
- 20:00 **SOCIAL EVENT**
at NAUTIKA RESTAURANT

Friday, August 26*

- 08:30 **KEYNOTE LECTURE**
Diagnostics in the era of molecular medicine
-
- 09:15 **TOPIC II**
Massive computing for integrated diagnostics
-
- 10:35 Coffee Break
-
- 11:00 **TOPIC II (ctd.)**
- 12:00 **TOPIC II PANEL DISCUSSION**
-
- 13:00 Lunch Break
-
- 14:00 **REPORTS AND DISCUSSION OF BREAKOUT SESSIONS**
-
- 15:00 Coffee Break
-
- 15:30 **SPECIAL FOCUS SESSION I**
The role of radiologists in image guided therapy
- 15:30 **SPECIAL FOCUS SESSION II**
Room Lavandula 2
Challenges in biomedical publication
- 16:30 **PANEL DISCUSSION**
SPECIAL FOCUS SESSIONS I + II
-
- 17:00 **KEYNOTE LECTURE**
Supporting radiology in underprivileged countries
-
- 17:45 **GENERAL ASSEMBLY**
(members only)
-
- 20:00 **SOCIAL EVENT**
at SPONZA PALACE

Saturday, August 27*

- 08:30 **TOPIC III**
Integrated diagnostics: the professional challenges
-
- 10:10 Coffee Break
-
- 10:40 **TOPIC III PANEL DISCUSSION**
-
- 11:40 **KEYNOTE LECTURE**
Translational concepts and innovations in the imaging of metastatic disease
-
- 12:25 **SUMMARY AND CONCLUSIONS**
-
- 13:00 **FAREWELL LUNCH**
-
- 15:00 **SOCIAL EVENT**
BOAT TRIP on KARAKA

*All sessions take place in room Lavandula 1, unless noted otherwise.



SCIENTIFIC PROGRAM SCHEDULE

Thursday, August 25

07:30 Registration

08:15 [Welcome by the Mayor of Dubrovnik](#)

08:30 [Welcome and Opening](#)
Gabriel P. Krestin/NL

08:45 KEYNOTE LECTURE

Introduction by Christian J. Herold/AT

[What will be new in imaging the coming 5 years?](#)

Elias A. Zerhouni/US

09:30 PANEL DISCUSSION

[The future of imaging](#)

Moderators: Christian J. Herold/AT, Herbert Y. Kressel/US

Panelists: Thomas Balzer/DE, Claire Corot/FR, Michael Harsh/US, Rich Mather/US, Fulvio Renoldi Bracco/IT, Bernd Montag/DE, Diego Olego/US, Roderic Pettigrew/US, Elias A. Zerhouni/US

10:30 Coffee Break

11:00 TOPIC I

[What is integrated diagnostics?](#)

Moderator: Guy Frija/FR

11:00 [The clinical needs and challenges](#)

Bernd K. Hamm/DE

11:20 [The healthcare enterprise perspective](#)

Jörg F. Debatin/DE

11:40 [The need for high performance \(cloud\) computing](#)

Ronald L. Arenson/US

12:00 TOPIC I (ctd.)

Moderator: Sachio Kuribayashi/JJP

12:00 [New technologies for integrated diagnostics](#)

Moritz Kircher/US

12:20 [The business of integrated diagnostics](#)

Hermann Requardt/DE

12:40 [Challenges and risks of integrated diagnostics](#)

Gene Saragnese/US

13:00 Lunch Break

14:00 TOPIC I

[PANEL DISCUSSION](#)

Moderators: Guy Frija/FR,

Sachio Kuribayashi/JJP

Panelists: Norman J. Beauchamp/US,

Byung Ihn Choi /KR,

Valtero Canepa/IT, Osman Ratib/CH

CONTROVERSIES IN THE PRACTICE OF IMAGING

15:00 BREAKOUT SESSION I

[Conflicts of interest in public-private partnerships](#)

Moderator: Steven E. Seltzer/US

Reporter: Peter Aspelin/SE

[Sponsorship \(CME, donations\)](#)

Adrian K. Dixon/UK

[Research collaborations](#)

William G. Bradley/US

[Industry initiated trials](#)

Willi A. Kalender/DE

DISCUSSION

15:00 BREAKOUT SESSION II

[Radiation exposure: challenges, responsibilities and conflicts.](#)

Moderator: Mathias Prokop/NL

Reporter: Jian-Ping Dai/CN

[Conflicting theories in radiation risk estimation](#)

Cynthia McCollough/US

[Professional responsibilities and challenges](#)

Stephen Golding/UK

[Technical & IT-solutions for dose reduction](#)

Norbert J. Pelc/US

DISCUSSION

16:30 Coffee Break

17:00 BREAKOUT SESSION III

[Need for new regulatory processes](#)

Moderator: Gustav K.v. Schulthess/CH

Reporter: Pek-Lan Khong/CN

[Acceptance of imaging biomarkers by regulatory bodies](#)

Markus Schwaiger/DE

[Registration and certification of new medical devices: policies in the US](#)

Larry G. Kessler/US

[New tracers and contrast agents](#)

Alberto Spinazzi/US

DISCUSSION

17:00 BREAKOUT SESSION IV

[Industrialized imaging](#)

Moderator: R. Nick Bryan/US

Reporter: Valentin E. Sinitsyn/RU

[Standardization vs. commoditization](#)

James H. Thrall/US

[Performance measurement](#)

Jeffrey C. Weinreb/US

[Transparency: consumer oriented healthcare](#)

Alexander R. Margulis/US

DISCUSSION

20:00 SOCIAL EVENT

at NAUTIKA RESTAURANT

SCIENTIFIC PROGRAM SCHEDULE

Friday, August 26

08:30 KEYNOTE LECTURE

Introduction by
Alexander R. Margulis/US

Diagnostics in the era of molecular
medicine
Ralph Weissleder/US

09:15 TOPIC II

Massive computing for integrated
diagnostics
Moderator: Maximilian F. Reiser/DE

09:15 Clinical trials in imaging
vs. imaging in clinical trials
Bruce J. Hillman/US

09:35 Comparative effectiveness
research in radiology
Barbara McNeil/US

09:55 Dynamic evidence based
diagnostics
Myriam Hunink/NL

10:15 Role of bioinformatics in
changing the radiology
business model
Dieter Enzmann/US

10:35 Coffee Break

11:00 TOPIC II (ctd.)

Moderator: Kazuro Sugimura/JP

11:00 IT giants and imaging
Oliver Chen/CN

11:20 e-infrastructure for future
diagnostic needs
John Dineen/UK

11:40 Sense and non-sense of
population imaging
Meike Vernooij/NL

12:00 TOPIC II

PANEL DISCUSSION

Moderators: Maximilian F. Reiser/DE,
Kazuro Sugimura/JP
Panelists: Boris Brkljacic/HR,
Jian-Ping Dai/CN, Luis Donoso/ES,
Bernd Montag/DE

13:00 Lunch Break

14:00 REPORTS AND DISCUSSION OF BREAKOUT SESSIONS

Moderator: Philippe A. Grenier/FR

Conflicts of interest

Peter Aspelin/SE

Patient safety

Jian-Ping Dai/CN

New regulatory processes

Pek-Lan Khong/CN

Industrialized imaging

Valentin E. Sinitzyn/RU

15:00 Coffee Break

15:30 SPECIAL FOCUS SESSION I

The role of radiologists in image
guided therapy

Moderators: Hedvig Hricak/US,
Ricardo Garcia-Monaco/AR

Imaging in the hybrid operating theatre

Jonathan S. Lewin/US

Role of radiology in image-guided radiotherapy

David Jaffray/CA

Theranostics for radiologists or for other specialists?

Martin Pomper/US

15:30 SPECIAL FOCUS SESSION II

Challenges in biomedical publication

Moderators: Gabriel P. Krestin/NL,
Bernd K. Hamm/DE

Citations, indices, H factor and other
parameters assessing publications
and authors: are they really
measuring quality?

Anthony van Raan/NL

Pressures that authors, editors and
departmental chairman are under
concerning publication

Adrian K. Dixon/UK

Where is the honour in honorary
authorship?

Herbert Y. Kressel/US

The opinion of the masses:
standard versus open peer review

Bruce J. Hillman/US

16:30 PANEL DISCUSSION

(Special Focus Session I)

Moderators: Hedvig Hricak/US,
Ricardo Garcia-Monaco/AR

Panelists: Claus Claussen/DE,
Gilbert Jost/US, Bernd Montag/DE

16:30 PANEL DISCUSSION

(Special Focus Session II)

Moderators: Gabriel P. Krestin/NL,
Bernd K. Hamm/DE

Panelists: Stanley Baum/US,
Philippe A. Grenier/FR,
Huibert A. P. Pols/NL

17:00 KEYNOTE LECTURE

Introduction by
Lenny Tan/SG

Supporting radiology in
underprivileged countries
Hans Ringertz/SE

17:45 GENERAL ASSEMBLY (members only)

20:00 SOCIAL EVENT at SPONZA PALACE

SCIENTIFIC PROGRAM SCHEDULE

Saturday, August 27

08:30 **TOPIC III**

**Integrated diagnostics:
the professional challenges**

*Moderators: Valerie P. Jackson/US,
András Palkó/HU*

08:30 **The position of radiology
in an integrated diagnostic
center**

James H. Thrall/US

08:50 **How to train future
“biomarker specialists”**

N. Reed Dunnick/US

09:10 **Subspecialization:
“The Matrix”**

Christian J. Herold/AT

09:30 **Strategies for closing the gap
between nuclear medicine
and radiology**

Hans Maier/DE

09:50 **Interventional radiology in
the era of integrated
diagnostics and personalized
medicine**

Andreas Adam/UK

10:10 Coffee Break

10:40 **TOPIC III**

PANEL DISCUSSION

*Moderators: Valerie P. Jackson/US,
András Palkó/HU*

*Panelists: Stanley Baum/US,
Moshe Graif/IL,
Alberto Spinazzi/US,
Ranka Štern-Padovan/HR,
Karl-Juergen Wolf/DE*

11:40 **KEYNOTE LECTURE**

*Introduction by
Gabriel P. Krestin/NL*

**Translational concepts and
innovations in the imaging of
metastatic disease**
Hedvig Hricak/US

12:25 **SUMMARY AND CONCLUSIONS**
Hans Ringertz/SE

13:00 **FAREWELL LUNCH**

15:00 **SOCIAL EVENT**
BOAT TRIP on KARAKA

VENUE, PARTNER HOTELS AND PRACTICAL INFORMATION

Venue

Dubrovnik Hotel Excelsior

Frana Supila 12
20000 Dubrovnik, Croatia
Phone: +385 20 353 390
Fax: +385 20 353 555
E-mail: info@hotel-excelsior.hr
Web: www.hotel-excelsior.hr

Dubrovnik Hotel Excelsior, known as one of the finest hotels on the Mediterranean according to the eminent Sunday Times, is a luxury five-star hotel and a part of the Adriatic Luxury Hotels group.

Situated just a few steps from the UNESCO Dubrovnik old town, overlooking the Adriatic Sea, the Hotel Excelsior's stunning location, its nonchalant elegance and Mediterranean charm make it one of the most beautiful hotels in the world.

Partner Hotels of the IS³R Symposium

Hotel Grand Villa Argentina

Hotel Grand Villa Argentina is situated next to the venue hotel. An exclusive place just minutes from the gates of Dubrovnik's old town.
Frana Supila 14
20000 Dubrovnik, Croatia
Phone: +385 20 440 555
Fax: +385 20 440 533

Hotel Bellevue

Hotel Bellevue is a partner hotel of the venue hotel Excelsior, situated 2km from the venue hotel. Hotel Bellevue has a private beach and is well suited for leisure activities. A shuttle bus is provided free of charge (twice a day - morning/evening) to and from the venue.
Pera Cingrije 7
20000 Dubrovnik, Croatia
Phone: +385 20 330 000
Fax: +385 20 330 100

Practical Information

Certificate of Attendance

Certificates certifying attendance will be provided upon request after the symposium.

Credit Cards/Currency Exchange

There is an ATM (Hypo-Alpe Adria Bank) at the entrance of the hotel. The closest bank is situated in the old town (5-10 min. walk). Money exchange is possible at the hotel with 1.5% commission fee. Major credit cards (American, Visa, Master Card, Diners) are accepted. Please note that the hotel is not able to cash traveller's cheques. The Croatian currency is Kuna.

Insurance

Neither the IS³R nor the symposium organizers can accept liability for personal injury, or loss/damage to property, personal or otherwise, belonging to meeting participants or accompanying persons, either during or as

a result of the symposium or during all tours or their stay in Dubrovnik. Participants and accompanying persons should ensure that their own personal health, accident and/or travel insurance are up-to-date and valid for use in Croatia.

Meals

Buffet breakfast is included in the room rate. Business lunch and coffee breaks are offered free of charge to delegates. Thank you for your understanding that IS³R does not provide lunch and coffee breaks for accompanying persons.

Official Language

English (no translation of the meeting will be provided).

Recording

Audio or video recording any part of the

symposium without prior express permission is prohibited.

Registration & Hotel/Travel Information

Staff at the registration desk in front of the main conference room "Lavandula" is available on Aug. 24 from 17:00–19:00 as well as during symposium hours from Thursday to Saturday. They will assist you with reservations, tourist information or any issues regarding your accommodation or travel arrangements.

Smoking Policy

The Hotel Excelsior is a non-smoking hotel/conference venue.

Speakers' Center

Speakers are kindly requested to upload their presentation at the Speakers' Center (behind the registration area) at least 90 min. before the start of their session.

SOCIAL EVENTS

Wednesday, August 24

Welcome Cocktail at the Palm Terrace of the Hotel Excelsior (19:00–20:00)

Drinks and finger food snacks will be served.
Dress code: Smart casual

Thursday, August 25

Dinner at Nautika Restaurant (20:00)

Nautika Restaurant is situated alongside the entrance to Dubrovnik's old town with one-of-a-kind views of the Adriatic and the fortresses of Lovrijenac and Bokar. Nautika Restaurant offers elevated Mediterranean cuisine. A nice walk through the old town will take us to the restaurant.

Dress code: Smart casual

Friday, August 26

IS³R private dinner at Sponza Palace (20:00)

The beautiful Sponza Palace, situated in Dubrovnik old town and built in the late Gothic and Renaissance styles, is one of Dubrovnik's highlights and will play host to an unforgettable evening. A short walk through the scenic old town will take us to the palace.

Dress code: Formal dress

Saturday, August 27

Boat trip on Karaka (15:00–19:30)

As a celebration at the end of the IS³R 2011 meeting, the local organizers Boris Brkljacic, Ranka Štern-Padovan and their "ambassador" Hedi Hricak have the pleasure of inviting you to a trip on the boat Karaka, a magnificent replica of a Dubrovnik Republic traditional carrack. Refreshments will be served.

Dress code: Casual

Please note that pre-registration to all social events was required. If you have signed up for an event and cannot attend, please kindly notify the registration desk at your earliest convenience.

For further details regarding meeting points etc., please refer to the IS³R Dubrovnik Welcome Letter you will find in your hotel room.

LIST OF PARTICIPANTS

Andreas Adam

Professor and Chairman of the Departments of Radiology, Nuclear Medicine and Medical Physics
Guy's and St. Thomas' Hospital
London/UK

Erkan Akyuz

Executive Vice President, Product Strategy & Development
Vital Images
Minnetonka, Minnesota/US

Ronald L. Arenson

Professor and Chairman, Department of Radiology and Biomedical Imaging
University of California, San Francisco
San Francisco, California/US

Peter Aspelin

Professor of Diagnostic Radiology at the Department of Clinical Science
Karolinska University Hospital Huddinge
Stockholm/SE

Peter Baierl

Executive Director
European Society of Radiology (ESR)
Vienna/AT

Thomas Balzer

Vice President, Head Global Clinical Development, Therapeutic Area Diagnostic Imaging
Bayer Healthcare Pharmaceuticals
Montville, New Jersey/US

Stanley Baum

Editor in Chief Academic Radiology and Professor, Department of Radiology
University of Pennsylvania
Philadelphia, Pennsylvania/US

Norman J. Beauchamp

Professor and Chairman of Radiology
University of Washington
Seattle, Washington/US

Guy Blomfield

Chief Operating Officer
Alliance Medical
Warwick/UK

Fulvio Renoldi Bracco

Member of the Board, Director
Bracco Imaging SpA
Milan/IT

William G. Bradley

Professor and Chairman of the Department of Radiology
UCSD Medical Center
San Diego, California/US

Boris Brkljacic

Professor and Chairman of the Department of Diagnostic and Interventional Radiology
Dubrava University Hospital
Zagreb/HR

R. Nick Bryan

Professor and Chairman of the Department of Radiology
University of Pennsylvania Health System
Philadelphia, Pennsylvania/US

Valtero Canepa

Head of Global Marketing/Business Unit Imaging
Bracco Imaging SpA
Milan/IT

Michael Carrel

President & CEO
Vital Images
Minnetonka, Minnesota/US

Oliver Chen

Principal Program Manager, Health Solutions Group
Microsoft Corporation
Beijing/CN

Byung Ihn Choi

Professor at the Department of Radiology
Seoul National University, College of Medicine
Seoul/KR

Claus Claussen

Professor and Chairman of the Department of Radiology
Eberhard-Karls-University Tübingen
Tübingen/DE

Robert Cooke

Senior Vice President
FujiFilm Medical Systems USA, Inc.
Stamford, Connecticut/US

Claire Corot

Research Vice President
Laboratoire Guerbet, SA
Roissy CDG Cedex/FR

Jian-Ping Dai

Professor and Chairman of Radiology
Beijing Tian Tan Hospital
Beijing/CN

Jörg F. Debatin

Medical Director, CEO
University Hospital Hamburg-Eppendorf
Hamburg/DE

Pierre Desché

Medical & Regulatory Affairs Vice President
Laboratoire Guerbet, SA
Roissy CDG Cedex/FR

John Dineen
President and CEO
GE Healthcare
Buckinghamshire/UK

Ludger Dinkelborg
Diagnostic Imaging Research
Bayer Healthcare Pharmaceuticals
Berlin/DE

Adrian K. Dixon
Editor in Chief European Radiology
Professor of Radiology
University of Cambridge
Cambridge/UK

Luis Donoso
Director of the Diagnostic Imaging
Department
Universidad de Barcelona
Barcelona/ES

N. Reed Dunnick
Professor and Chairman of the Department
of Radiology
University of Michigan
Ann Arbor, Michigan/US

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Cord Friedrich Stähler

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Erlangen/DE

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Clinical Hospital Center Zagreb
Zabreb/HR

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Leiden/NL

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Radiologist, Department of Radiology and Department of Epidemiology
Erasmus MC, University Medical Center
Rotterdam
Rotterdam/NL

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Yale University
New Haven, Connecticut/US

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Boston, Massachusetts/US

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Karl-Jürgen Wolf

Professor of Radiology
Charité – Universitätsmedizin Berlin
Berlin/DE

Elias A. Zerhouni

Professor of Radiology and Biomedical Engineering
Johns Hopkins Medicine
Baltimore, Maryland/US

Administration

IS³R – EUROPEAN OFFICE

Symposium Secretariat
Monika Hierath & Szilvia Csóka
Neutorgasse 9/2, 1010 Vienna, AUSTRIA
Phone: +43-1-533-4064 - 526
Fax: +43-1-535-7037
E-mail: office@is3r.org

IS³R – US OFFICE

Society Secretariat
Pamela F. Mechler
1891 Preston White Dr
Reston, VA 20191, USA
Phone: +1-703-716-7545
Fax: +1-703-716-4487
E-mail: pmechler@acr.org

www.is3r.org



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