



The Future of Medical Imaging

Trends and Perspectives



Erasmus MC
University Medical Center
Rotterdam, the Netherlands
November 10-11, 2018



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University Medical Center Rotterdam



INTRODUCTION



Dear Colleagues, dear Friends,

It is my distinct privilege and great pleasure to present to you the final program of our International Symposium on the occasion of the inauguration of our new Department of Radiology & Nuclear Medicine at Erasmus MC in conjunction with the Interim Meeting of the International Society of Strategic Studies in Radiology in Rotterdam. I am extremely grateful to all participants and especially to all speakers and moderators who followed our invitation to join us at this event and help us to make it a true celebration of our discipline.

After almost 20 years of planning and more than 9 years of building, our new Erasmus Medical Center was finally completed just a few months ago. It is the largest construction ever built in the Benelux, the largest hospital in the Netherlands, and one of the leading centers in patient care, education and research in Europe. At the Department of Radiology & Nuclear Medicine, we are very proud of being hosted in a prominent and central location of this "Medical Center of the 21st Century". It was therefore obvious that we wanted to celebrate this "grand opening" after so many years of logistic hassle and anxious expectations.

It was also evident that our international friends should be part of this inauguration. But most of our friends are members of this small family of department chairs, eminent scientists, and captains of industry called IS3R. I am grateful to our President Sam Gambhir that he embraced the idea of holding the Society's so-called Interim Meeting not in Chicago during the RSNA but in connection to our local event. And he was also supportive of the idea proposed by my team at Erasmus MC: why not additionally invite some future leaders in radiology who are not yet members but are "high potentials" for future leadership positions and offer them to benefit from this unique forum of strategic thinkers and key opinion leaders in our profession and the related industry.

So this is what we finally achieved: an almost balanced participation of IS3R members, representatives of our corporate partners and medical imaging's "future leaders". The topics we chose for the symposium will give ample opportunity for discussion and debate: the trends in healthcare affecting medical imaging, the man-machine interaction using AI, and the future perspectives in technological innovation. Besides that, some extremely experienced and highly esteemed senior members of our Society will give so-called "Masterclasses" allowing in depth discussion of some specific topics of general interest.

I would like to thank all participants already now for taking the time to join us here in Rotterdam for our inaugural celebrations. I hope that you will enjoy the time in this vibrant, multicultural, no-nonsense harbor city and maybe decide to spend a couple of more days here or in the country. And in-between - during coffee and lunch breaks and after the sessions - we will be happy to proudly show off our new hospital and our new department.



Gabriel Krestin

SCIENTIFIC PROGRAM

Saturday, November 10, 2018

- 8:30-9:00 **OPENING** (by the Dean of the Medical School of the Erasmus University)
- 9:00-9:45 **KEYNOTE LECTURE 1: OPPORTUNITIES AND CHALLENGES IN HEALTHCARE IN NL** (E. Kuipers)
- 9:45-10:30 **SESSION 1: TRENDS IN HEALTHCARE AFFECTING MEDICAL IMAGING**
Moderators: B. Brkljacic
- Value-based Imaging (J. Visser)
- Imaging in Population Health Management (J. Brink)
- Higher Quality = Higher Value? How Can Technology Help? (R. Cascella)
- 10:30-11:00 Coffee Break and Visit of the New Radiology Department
- 11:00-12:00 **PANEL DISCUSSION 1: THE TRUE IMPACT OF IMAGING**
Moderators: M. Fuchsjaeger, P. Parizel
- Panelists: X. Feng, P. Grenier, C. Kuhl, B. McNeil, A. Palkó
- 12:00-13:00 **MASTER CLASS SERIES 1**
- Medical Imaging in Developing Countries (B. Jankharia)
- The Future of Scientific Dissemination (M. Reiser, H. Kressel)
- Good Science – Bad Science (M. Prokop)
- How to Boost Innovation (K. Murphy)
- Leadership in Times of Change (N. Beauchamp)
- 13:00-14:00 Lunch
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SCIENTIFIC PROGRAM

Saturday, November 10, 2018

14:00-15:00 **SESSION 2: MAN-MACHINE INTERACTION IN THE ERA OF AI**

Moderators: [R. Garcia-Monaco](#), [K. Nikolaou](#)

Data Mining & Machine Learning for Integrated CDS ([G. Boland](#))

Artificial Intelligence for an Efficient Workflow ([A. Kaindl](#))

Biomedical and Genetic Data Analytics for Precision Medicine ([W. Niessen](#))

Learning Clinically Useful Information from Medical Images ([D. Rueckert](#))

15:00-15:30 Coffee Break and Visit of the New Radiology Department

15:30-16:30 **PANEL DISCUSSION 2: MEDICAL IMAGING WITHOUT IMAGES?**

Moderators: [R. Bryan](#), [L. Donoso](#)

Panelists: [A. Ahmed](#), [M. Dewey](#), [K. Dreyer](#), [E. Gura](#), [T. Kronander](#), [O. Ratib](#), [J. Sosna](#)

16:30-17:30 **MASTER CLASS SERIES 2**

How to Manage Imaging Research ([G. Krestin](#))

KPIs in Radiology ([J. Thrall](#))

The Value Proposition in Medical Imaging ([G. Rubin](#))

Entrepreneurship in Medical Imaging ([B. Montag](#))

Dos and Don'ts in Clinical Research ([M. Schnall](#))

17:30 Adjourn

19:30 **SOCIAL EVENT**

SCIENTIFIC PROGRAM

Sunday, November 11, 2018

- 8:30-9:30 **SESSION 3: ARE WE ENTERING THE DARK AGE OF INNOVATION?**
Moderators: [G. Cerri](#), [G. von Schulthess](#)
- Disruptive Innovations in Image Acquisition: Is This the End? ([D. Le Bihan](#))
- Function or Structure: Where Should We Invest? ([T. Grist](#))
- Molecular Imaging: Hope or Hype? ([J. Lewis](#))
- Is There Still Innovation in Contrast Media? ([O. Clément](#))
- 9:30-10:30 **PANEL DISCUSSION 3: THE TOP 5 HOT TRENDS IN MEDICAL IMAGING**
Moderators: [R. Pettigrew](#), [H. Ringertz](#)
Panelists: [U. Attenberger](#), [R. Hausmann](#), [R. Mather](#), [T. McGuinness](#), [H. Pien](#), [A. Saindane](#), [C. Zindel](#)
- 10:30-11:00 Coffee Break and Visit of the New Radiology Department
- 11:00-12:00 **MASTER CLASS SERIES 3**
- Non-interpretative Skills in Radiology ([F. Gilbert](#))
- The Future of Radiology Education/Training ([C. Meltzer](#))
- Frontiers in Cancer Imaging ([H. Hricak](#))
- Integration or Super-specialization ([C. Herold](#))
- Public-Private Partnerships ([S. Schönberg](#))
- 12:00-12:45 **KEYNOTE LECTURE 2: THE ROLE OF THE RADIOLOGIST IN 21ST-CENTURY HEALTHCARE** ([S. Gambhir](#))
- 12:45-13:00 **CLOSING**
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IS3R and Erasmus MC
Joint Symposium

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