30th Ernst Klenk Symposium in Molecular Medicine of the Center for Molecular Medicine Cologne (CMMC)

DNA Damage Response and Repair Mechanisms in Aging and Disease

Sept. 21 – 23, 2014

Program

Scientific Coordinator
Jan H. J. Hoeijmakers
Dept. of Genetics, Erasmus Medical Center - Rotterdam, NL

Cologne Ernst Klenk Symposium Board 2014
Björn Schumacher (Chair) - Thomas Benzing - Michael Hallek - Thorsten Hoppe
Catherin Niemann - Carien Niessen - H. Christian Reinhardt - Bernd Wollnik

in collaboration with
CECAD Cologne • ITN CodeAge • Clinical Trials Centre Cologne (ZKS Köln)
University Hospital Cologne • CRC 829 • CRC 670
BioRiver - Life Science im Rheinland e.V.

Participation in the meeting is free of charge.
Further information and free registration:
www.zmmk.uni-koeln.de/events/ernst_klenk_symposium/klenk_2014

Venue
Main Lecture Hall of the Centers for Biochemistry and Physiology
Medical Faculty, University of Cologne
Joseph-Stelzmann-Str. 52, 50931 Cologne

Organized by
Center for Molecular Medicine Cologne (CMMC), University of Cologne
Debora Grosskopf-Krother and the CMMC Team
in collaboration with Cologne Convention Bureau

We gratefully acknowledge support by:
Ewald Innovationstechnik GmbH • LMS Consult
(status quo December 2013)

Sunday – Sept. 21, 2014

12.50 p.m. Welcome Address
Axel Freimuth
Rector University of Cologne
Thomas Benzing
Chair - Center for Molecular Medicine Cologne (CMMC)

Session I DNA repair mechanisms

Chair: pending

1.00 – 1.30 p.m. DNA-Protein Crosslink Repair
Stefan Jentsch
Max Planck Institute of Biochemistry, Martinsried - Germany

1.30 – 2.00 p.m. Responses to replication stress and DNA DSBs: Mechanisms and relevance to cancer
Jiri Bartek
The Danish Cancer Society Research Center, Copenhagen - Denmark

2.00 – 2.30 p.m. Ubiquitin-dependent degradation at the chromatin
Thorsten Hoppe
CECAD Cluster of Excellence in Aging Research (CECAD), Cologne - Germany

2.30 – 3.00 p.m. Coffee Break

3.00 – 3.30 p.m. Structural mechanisms of sensing and signaling DNA double-strand breaks
Karl-Peter Hopfer
Ludwig-Maximilians-University Munich - Germany

3.30 – 4.00 p.m. Metabolic pathways influencing the DNA damage response
Marco Foiani
Fondazione Istituto FIRC di Oncologia Molecolare, Milan - Italy

4.00 – 4.30 p.m. Coffee Break

4.30 – 5.00 p.m. Chromatin assembly from nucleosome to heterochromatin: the issue of DNA damage
Geneviève Almouzni
Institut Curie Research Centre, Paris - France

5.00 – 5.30 p.m. Mechanisms and DNA structures mediating replication of damaged chromosomes
Dana Branzei
Fondazione Istituto FIRC di Oncologia Molecolare, Milan - Italy

5.30 – 8.00 p.m. Poster Session (incl. Selection of three Posters for the Poster Awards)
Welcome Get-Together with Fingerfood for all Participants
Monday – Sept. 22, 2014

Session II DNA Damage Repair in aging and cancer

Chair pending

9.00 – 9.30 a.m. The Multifaceted Mismatch Repair
Josef Jiricny
University of Zurich - Switzerland

9.30 – 10.00 a.m. Genomic instability and altered DNA damage responses in progeria syndromes
Bernd Wolpers
Center for Molecular Medicine Cologne, Univ. of Cologne - Germany

10.00 – 10.30 a.m. Exploring the role of replicative stress in aging and cancer
Óscar Fernández-Capetillo
Spanish National Research Cancer Centre, Madrid - Spain

10.30 – 11.00 a.m. Coffee Break

11.00 – 11.30 a.m. Delineating DNA damage pathways in telomere shortening induced aging
Karl Lenzhard Rudolph
Leibniz Institute for Age Research, Fritz Lipmann Institute, Jena - Germany

11.30 – 12.00 p.m. The common hallmarks of aging and cancer: messages from the nuclear envelope
Carlos Lopez-Otin
University of Oviedo - Spain

12.00 – 12.30 p.m. TORC2 controls genome stability following zeocin- or ionizing radiation-induced damage
Susan M. Gasser
Friedrich Miescher Institute for Biomedical Research, Basel - Switzerland

12.30 – 2.00 p.m. Lunch Break (Soup and Sausages for all participants at the venue)

Session III Systemic DNA response and immunity

Chair Pending

2.00 – 2.30 p.m. Starvation, nutrient signaling, and DNA damage
Valter Longo
University of Southern California, Los Angeles - USA

2.30 – 3.00 p.m. title pending
Michael T. Hemann
The Koch Institute Kendall Square, Cambridge - USA

3.00 – 3.30 p.m. title pending
Lars Zender
University Hospital Tuebingen - Germany

3.30 – 3.50 p.m. Coffee Break

3.50 – 4.00 p.m. Presentation of the Poster Awards

4.00 – 4.30 p.m. Systemic DNA damage responses
Björn Schumacher
CECAD Cluster of Excellence in Aging Research (CECAD), Cologne - Germany

4.30 – 5.00 p.m. Control of innate immune homeostasis and regeneration by stress signaling
Heinrich Jasper
Bluk Institute for Research on Aging, Novato - USA

5.00 – 5.30 p.m. DNA-damage induced differentiation as an anti-cancer barrier
Andre Nussenzweig
Laboratory of Genome Integrity, National Institute of Health, Bethesda - USA

5.30 – 6.00 p.m. Coffee Break with Snacks

Tuesday – Sept. 23, 2014

Session IV Targeting DNA repair and cancer therapy

Chair pending

9.00 – 9.30 a.m. Exploiting Synthetic lethality approaches in treating cancer
Christopher J. Lord
Institute of Cancer Research, London - UK

9.30 – 10.00 a.m. Targeting the Fanconi Anemia/BRCA Pathway in cancer therapy
Alan D’Andrea
Dana-Farber Cancer Institute, Boston - USA

10.00 – 10.30 a.m. Breaking bad: Causes and consequences of genomic instability
Steven Elledge
Harvard Medical School, Boston - USA

10.30 – 11.00 a.m. Coffee Break

11.00 – 11.30 a.m. Unraveling therapy response and resistance in mouse models of BRCA1-deficient breast cancer
Jos Jonkers
The Netherlands Cancer Institute, Amsterdam - The Netherlands

11.30 – 12.00 p.m. Sanitizing the damaged dNTP pool for replication fidelity, basic science to cancer treatment
Thomas Helleday
Karolinska Institutet, Stockholm - Sweden

12.00 – 12.30 p.m. Targeting defects in the DNA damage response for personalized cancer therapy
H. Christian Reinhardt
CECAD Cluster of Excellence in Aging Research (CECAD), Cologne - Germany

12.30 – 12.45 p.m. Summary, open questions, concluding remarks
Jan H. J. Hoeijmakers and Björn Schumacher

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Childcare is provided by Spielland, University of Cologne.
Registration is required, please contact Debora Grosskopf-Kroih.

For directions please visit: http://www.medizin.uni-koeln.de/zbi/plk/anfahrt