

## 2<sup>nd</sup> Cologne Ageing Conference April 3-5, 2016

Adam Antebi, Jens Brüning, Thorsten Hoppe, Nils-Göran Larsson, Linda Partridge,  
Björn Schumacher, David Vilchez

**Venue:**

MTI building, Joseph-Stelzmann-Str. 9, D-50931 Cologne

**April 3, 2016**

Venue: MTI building

12.00 -14.00                    **Registration**

**Session I: Stem cells, senescence and regeneration**

Chair: **David Vilchez**

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|---------------|--|
| 14.00 – 14.15 | Welcome <b>Björn Schumacher</b>  |
| 14.15 – 14.20 | Introduction to session <b>David Vilchez</b>   |
| 14.20 – 14.50 | <b>Aziz Aboobaker</b> <i>University of Oxford, Department of Zoology, Oxford, UK</i><br>"The molecular and cellular basis of of stem cell underpinning of an immortal life history"        |
| 14.50 – 15.20 | <b>Jan van Deursen</b> <i>Mayo Clinic, Rochester, MN, US</i><br>"How senescent cells drive aging and disease"  |
| 15.20 – 15.32 | <b>Marco Demaria</b> <i>ERIBA, Groningen, NL</i><br>„Cellular senescence promotes adverse reactions to chemotherapy“   |
| 15.32 – 15.44 | <b>Laura Greaves</b> <i>Newcastle University, Newcastle, UK</i><br>„Age-associated mitochondrial dysfunction promotes intestinal tumour development“                                       |
| 15.44 – 15.56 | <b>Lida Katsimpardi</b> , <i>Harvard University, Cambridge, MA, US;</i><br><i>Institut Pasteur, Paris, France</i><br>„Young blood as a therapy for age-related neurodegenerative diseases“ |
| 15.56 – 16.30 | <i>Coffee break</i>  |

Chair: **Elena Rugarli**

|               |  |
|---------------|--|
| 16.30 – 17.00 | <b>Joan Mannick</b> <i>Novartis Institutes for BioMedical Research, Cambridge, MA, US</i><br>„mTOR inhibition improves immune function in elderly humans“  |
| 17.00 – 17.30 | <b>Thomas A. Rando</b> <i>Stanford Dep. of Neurology, Stanford University, Stanford, CA, US</i><br>„Epigenetic mechanisms of stem cell aging and rejuvenation“   |
| 17.30 – 17.42 | <b>Olena Kucheryavenko</b> <i>Institute for Ageing and Institute for Cell and Molecular Biosciences, Newcastle, UK</i><br>„Interventions to limit senescence-induced bystander effect“   |
| 17.42 – 17.54 | <b>Helen Tauc</b> <i>Institut für Biochemie &amp; Molekulare Biologie, Universität Ulm, DE</i><br>„Nipped-A/TRRAP maintains midgut homeostasis during aging in <i>Drosophila</i> by regulating intestinal stem cell proliferation“ |
| 17.54 – 18.06 | <b>Yosef Reut</b> <i>Weizmann Institute of Science, Rehovot, IL</i><br>„Directed elimination of senescent cells by inhibition of BCL-W and BCL-XL“   |
| 18.06 – 21.00 | <i>Poster session I / Kölsch, Snacks</i>   |

**April 4, 2016**

**Session II: Protein homeostasis and proteotoxic diseases**

Chair: **Thorsten Hoppe**

- 09.00 – 09.05 Introduction to session **Thorsten Hoppe**  
09.05 – 09.35 **Anne Bertolotti** *MRC Laboratory of Molecular Biology, Cambridge, Biomedical Campus Cambridge, UK*  
"Preventing protein quality control failure and neurodegenerative diseases"  
09.35 – 10.05 **Monique Breteler** *German Center for Neurodegenerative diseases (DZNE), Bonn, DE; Harvard T.H. Chan School of Public Health Department of Epidemiology, Boston, MA, US*  
"Common mechanisms and disease-specific pathways in age-related diseases"  
10.05 – 10.17 **Jonathan Byrne** *Institute of Molecular Biology (IMB), Mainz, DE*  
„Antagonistic Pleiotropy in the autophagic machinery modulates lifespan conversely over age in *C. elegans*“  
10.17 – 10.29 **Ilias Gkikas** *Institute of Molecular Biology and Biotechnology, Heraklion, GR*  
„An alternative hypoxia response mechanism independent of HIF-1 involves mitochondrial metabolic adaptation“  
10.29 – 10.41 **Michael Lammers** *CECAD, Cologne, DE*  
"Lysine-acetylation in cellular regulation, ageing and disease"  
10.41 – 11.10 *Coffee break*

Chair: **Adam Antebi**

- 11.10 – 11.40 **Ivan Dikic** *IBC II, Goethe University, Frankfurt, DE*  
"Ubiquitin networks in regulation of proteostasis and autophagy"  
11.40 – 12.10 **Stefan Jentsch** *Max Planck Institute of Biochemistry, Dept. of Molecular Cell Biology, Martinsried, DE*  
"Splicing fidelity controlled by the ubiquitin relative hub1"  
12.10 – 12.22 **Marie Lechler** *DZNE, Tübingen, DE*  
„Investigating stress granule insolubility with age“  
12.22 – 12.34 **Hyun Kate Lee** *Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, DE*  
„Age-dependent aberrant transition of membraneless organelles into pathological aggregates“  
12.34 – 12.46 **Michal Schweiger** *University Hospital of Cologne, Functional Epigenomics, CCG, Cologne, DE*  
„Splicing during heat shock is regulated by the bromodomain protein BRD4 and the heat shock transcription factor 1“  
12.46 – 14.50 *Poster session II, Lunch*

**Session III: Nuclear Organization and Genome Stability**

Chair: **Björn Schumacher**

- 14.50 – 14.55 Introduction to session **Björn Schumacher**  
14.55 – 15.25 **Eric Gilson** *IRCAN, Nice, FR*  
"The double life of telomeric proteins"  
15.25 – 15.55 **Jacqueline Jacobs** *NKI, Amsterdam, NL*  
"Mechanisms underlying genome instability upon DNA repair at telomeres"  
15.55 – 16.07 **Niels de Wind** *<sup>1</sup>Dep. of Human Genetics, Leiden University Medical Center, Leiden, NL*  
"Endogenous DNA damage, replication stress, and ageing"  
16.07 – 16.19 **Nard Kubben** *National Cancer Institute (NCI), Bethesda, MD, US*  
„Repression of the antioxidant NRF2 pathway in premature aging“  
16.19 – 16.50 *Coffee break*

Chair: **Nils-Göran Larsson**

- 16.50 – 17.20 **Andrei Seluanov** *University of Rochester, Department of Biology, Rochester, NY, US*  
“SIRT6 is the new guardian of the genome“
- 17.20 – 17.50 **Manuel Serrano** *Centro Nacional de Investigaciones Oncológicas, Madrid, ES*  
“Tissue repair: an integrated view of senescence and reprogramming“
- 17.50 – 18.02 **Argyris Papantonis** *CMMC, Cologne, DE*  
“Common determinants of global 3D chromatin reorganization upon senescence of different primary human cells: a link to the SASP“
- 18.02 – 18.14 **Lene Rasmussen** *Center for Healthy Aging, Copenhagen, DK*  
„Rev1-deficiency induces age-related disorders via PARP1 activation and impaired mitochondrial homeostasis“
- 18.14 – 18.26 **Gisela Slaats** *CECAD, Cologne, DE*  
“DNA replication stress underlies renal phenotypes in CEP290-associated joubert syndrome“
- 19.00 *Dinner (only invited guests)*

## April 5, 2016

### Session IV: Metabolism

Chair: **Jens Brüning**

- 09.00 – 09.05 Introduction to session **Jens Brüning**
- 09.05 – 09.35 **Michael Hall** *Biozentrum University of Basel, Basel, CH*  
“mTOR signaling in growth and metabolism“
- 09.35 – 10.05 **Brian Luke** *Institute for Molecular Biology, Mainz, DE*  
“The regulation of TORC1 activity has important influences on the DNA damage checkpoint response“
- 10.05 – 10.17 **Cornelis Calkhoven** *ERIBA, Groningen, NL*  
“mTORC1-C/EBP $\beta$  regulation of healthspan and lifespan“
- 10.17 – 10.29 **Alessandro Cellerino** *Scuola Normale Superiore, BIO@SNS, Pisa, IT*  
„MicroRNA-29 controls a compensatory response to limit neuronal iron accumulation during aging“
- 10.29 – 10.41 **Collin Ewald** *ETH Zürich, Zürich, CH*  
“Reduced insulin/IGF-1-signalling implicates extracellular matrix remodelling in longevity“
- 10.41 – 11.10 Coffee break

Chair: **Linda Partridge**

- 11.10 – 11.40 **David Sabatini** *Whitehead Institute for Biomedical Research, MIT, Boston, MA, US*  
“Control of growth and metabolism by mTOR“
- 11.40 – 12.10 **Aurelio Teleman** *DKFZ Heidelberg, DE*  
“Physiological regulation by stearic acid“
- 12.10 – 12.40 **Marian Walhout** *University of Massachusetts, MA, US*  
“Nutritional regulatory networks“
- 12.40 – 12.52 **Dario Valenzano** *MPI Biology of Ageing, Cologne, DE*  
“Changes in the intestinal microbiota affect ageing in the short-lived“ African turquoise killifish“
- 12.52 – 13.15 *Poster prize*
- 13.15 – 14.00 *Lunch*