Tuesday, September 29

8:00 – 9:00  Registration

9:00 – 9:15  Welcome

Session 1: Somatic and stem cell aging  
Chair: Christine Borowski (*Nature Medicine*, USA)

9:15  *Aging hematopoietic stem cells*  
Emmanuelle Passegue (University of California, San Francisco)

9:45  *A systemic approach for rejuvenating the aging brain*  
Saul Villeda (University of California, San Francisco, USA)

10:15  *Non-coding RNAs in cardiovascular disease and aging*  
Stefanie Dimmeler (Goethe-University Frankfurt am Main, Germany)

10:45  *Cdc42 mediated epigenetic regulation of hematopoietic stem cell aging and rejuvenation*  
M.Carolina Florian (Institute of Molecular Medicine and Stem Cell Aging, University of Ulm, Germany)

11:00 – 11:30 Coffee

Session 2: Mitochondrial metabolism, sirtuins and cellular energetics  
Chair: Hannah Stower (*Nature Medicine*, USA)

11:30  *Aging and mitochondria*  
Toren Finkel (National Institutes of Health, USA)

12:00  *Epigenetic control of gene expression by nutrient metabolism*  
Matthew Hirschey (Duke University, USA)

12:30– 14:00 Lunch

14:00 – 15:00 Panel discussion co-moderated by Christine Borowski and Kevin Da Silva

Panelists: Rafael de Cabo, Jan van Deursen, Andrew Dillin, Joan Mannick, Linda Partridge, Saul Villeda
Session 3: Longevity and lifespan
Chair: Kevin Da Silva (Nature Medicine, USA)

15:00 Regulation of longevity by the reproductive system
Adam Antebi (Max Planck Institute for Biology of Aging, Germany)

15:30 Investigating stress granule insolubility with age
Marie Lechler (German Center for Neurodegenerative Diseases, Germany)

15:45 Endogenous hydrogen sulfide as a common effector of prolongevity pathways
James Mitchell (Harvard University, USA)

16:15 – 18:15 Poster Session and Reception

Wednesday, September 30

Keynote address
Chair: Hannah Stower (Nature Medicine, USA)

9:00 – 10:00 Nutrient-sensing networks and health during ageing: Identifying molecular mechanisms
Linda Partridge (Max Planck Institute for Biology of Aging, Germany and University College London, UK)

10:00 – 10:30 Coffee break

Session 4: Genomic Stability and Senescence
Chair: Hannah Stower (Nature Medicine, USA)

10:30 The telomeres syndromes: A paradigm for molecular medicine
Mary Armanios (Johns Hopkins University, USA)

11:00 HOXA9 induced developmental signals impair muscle stem cells and regeneration in aging mice
K. Lenhard Rudolph (Leibinz Institute for Age Research, Germany)

11:30 Epigenetic changes and somatic retrotransposition in mammalian aging
John Sedivy (Brown University, USA)

12:00 Treatment of age-related diseases by senescent cell clearance
Jan van Deursen (Mayo Clinic College of Medicine, USA)

12:30 – 14:00 Lunch
Session 5: Proteostasis: Protein folding, stress and degradation  
Chair: Kevin Da Silva (Nature Medicine, USA)

14:00  
*Mechanisms of chaperone mediated protein disaggregation*  
Bernd Bukau (Heidelberg University, Germany)

14:30  
*Lipid biosynthesis coordinates the mitochondrial to cytosolic stress response - MCSR*  
Andrew Dillin (University of California, Berkeley)

15:00  
*Protein oxidation, protein aggregation and beyond*  
Tilman Grune (German Institute of Human Nutrition, Potsdam-Rehbrücke, Germany)

15:30  
*Anti-aging effects of caloric restriction mimetics*  
Guido Kroemer (University of Paris Rene Descartes, France)

16:00 – 16:30 Coffee

Session 6: Therapeutic Intervention  
Chair: Christine Borowski (Nature Medicine, USA)

16:30  
*Dietary interventions for healthy aging*  
Rafael de Cabo (National Institutes of Health, USA)

17:00  
*What is an anti-aging treatment?*  
David Gems (University College London, UK)

17:30  
*Developing drugs that target aging pathways: An industry perspective*  
Joan Mannick (Novartis Institutes for BioMedical Research, USA)

18:00  
*UPS dysfunction in tauopathy: Mechanisms and therapeutic opportunities*  
Karen Duff (Columbia University, USA)

18:30  
*Consequences of removing senescent cells to atherosclerosis initiation and progression*  
Darren Baker (Mayo Clinic College of Medicine, USA)

18:45  
Close of day