Program

Tuesday, September 29

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
        Maria 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 pro-longevity 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
Karl 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 Dilllin (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 Joan Mannick (Novartis, 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