Aging: Cellular mechanisms and therapeutic opportunities, a Herrenhausen symposium
September 29-30
Hannover, Germany

September 29

9:00-10:30 a.m. **Somatic and stem cell aging**

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

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

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

10:30-11:00 a.m. Coffee

11:00-12:30 p.m. **Mitochondrial metabolism, sirtuins and cellular energetics**

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

*Mitochondrial protein acetylation and acylation regulate metabolism*
Matthew Hirschey (Duke University, USA)

*Mitochondrial metabolism regulation by sirtuins*
Eric Verdin (University of California San Francisco, USA)

12:30-2:00 p.m. Lunch

2:00-3:00 p.m. Panel discussion

3:00-4:15 p.m. **Longevity and lifespan**

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

Cynthia Kenyon (University of California, San Francisco, USA)

*Investigating Stress Granule Insolubility with Age*
Marie Lechler (German Center for Neurodegenerative Diseases, Germany)

4:30-6:30 p.m. Poster Session and Reception
September 30

9:00-10:00 a.m. **Keynote address**

*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 a.m. Coffee

10:30-12:30 p.m. **Genomic Stability and Senescence**

*Telomeres and age-related disease*
Mary Armanios (Johns Hopkins University, USA)

Karl Lenhard Rudolph (Leibinz Institute for Age Research, Germany)

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

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

12:30-2:00 p.m. Lunch

2:00-4:00 p.m. **Proteostasis: Protein folding, stress and degradation**

*Chaperone networks fighting protein aggregation*
Bernd Bukau (Heidelberg University, Germany)

*Orchestrating aging across a troubled soma*
Andrew Dillin (University of California, Berkeley)

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

*Caloric restriction mimetics: a new class of autophagy inducers*
Guido Kroemer (University of Paris Rene Descartes, France)

4:00-4:30 p.m. Coffee
4:30-6:45 p.m.  **Therapeutic Intervention**

Rafael de Cabo (National Institutes of Health, USA)

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

*Hydrogen sulfide metabolism and aging*
James Mitchell (Harvard University, USA)

Karen Duff (Columbia University, USA)

*Consequences of Removing Senescent Cells to Atherosclerosis Initiation and Progression*
Darren Baker (Mayo Clinic College of Medicine, USA)

6:45 p.m.  Adjourn