

**IUBMB Focused
Meeting on**
«Molecular aspects
of aging & longevity»



IUBMB Focused Meeting on «Molecular aspects of aging and longevity»

October 16th – 19th, 2017

National Hellenic Research Foundation, Athens, Greece

<http://www.iubmb2017aging.org>

Scientific program

October 16th, 2017

09.00 – 11.00

Session-1: “Human ageing and diseases”

Chair-persons: Barbara Demeneix & Vassilis Gorgoulis,

Barbara Demeneix, Paris, France, “Neural stem cell decisions, thyroid hormone and ageing”

Helen Irving, Melbourne, Australia, “Self-generating auto-regulatory signals modify protein function in innate immunity”

Christos Zouboulis, Berlin, Germany, “Modern methods of gender-independent determination of age”

Vassilis Gorgoulis, Athens, Greece, “Mutation signatures reveal the role of RAD52 recombinase in fueling genome instability and escape from senescence”

11.00 – 11.30

Coffee break

11.30 - 12.15

Plenary Lecture-1

Chair-person: Nektarios Tavernarakis

John Sedivy, Providence, USA, “Epigenetic Changes and Somatic Retrotransposition in Cellular Senescence and Aging”

12.15 – 13.30

Lunch break

13.30 – 15.00

Poster session 1

15.00 – 17.00

Session 2: “Protein damage and turnover”

Chair-persons: Heinz Osiewacz & Bertrand Friguet

**IUBMB Focused
Meeting on**
«Molecular aspects
of aging & longevity»



Nektarios Tavernarakis, Herakleion, Greece, “Mitophagy and mitochondrial biogenesis in neurodegeneration and ageing”

Heinz Osiewacz, Frankfurt, Germany, “Macroautophagy as part of a complex quality control network involved in organismal aging”

Bertrand Friguet, Paris, France, “The Oxi-Proteome: Impact of protein oxidative modifications in cellular aging.”

Nicholas Hannah, Sydney, Australia, “A tau-like protein regulates neuronal aging and the response to oxidative stress in *C. elegans*”

17.00 – 17.30

Coffee break

17.30 – 19.30

Session 3: “Epigenetics and macromolecular damage”

Chair-persons: Stathis Gonos & Patty Opresko

Peter Adams, Glasgow, UK, “The dynamic epigenome - a challenge to healthy aging”

Stathis Gonos, Athens, Greece, “Proteasome activation as a novel anti-aging strategy”

Olivier Coux, Montpellier, France, “Regulating the regulator: PIP30, a novel cofactor of the nuclear activator of the proteasome, PA28gamma” (*Supported by COST ACTION BM1307 PROTEOSTASIS*)

Patty Opresko, Pittsburgh, USA, “Investigating How Oxidative DNA Damage Alters Telomere Maintenance”

19.30 –

Welcome reception

October 17th, 2017

09.00 – 11.00

Session 4: “Biomarkers of senescence”

Chair-persons: Alexander Burkle & Pidder Jansen-Duerr

Alexander Burkle, Constance, Germany, “Biomarkers of human ageing -- the EU FP7 MARK-AGE project and beyond”

Giovanni Grillari, Vienna, Austria, “miRNAs as members of the senescence associated secretory phenotype influence cell fate decision”

**IUBMB Focused
Meeting on**
«Molecular aspects
of aging & longevity»



Keetae Kim, Daegu, S. Korea, “Decreasing mir-210 expression in hypothalamus enhances energy metabolism by increasing autophagy and mitochondrial functions and improves lifespan of aged mice”

Pidder Jansen-Duerr, Innsbruck, Austria, “Oxaloacetate decarboxylase FAHD1 – a novel regulator of mitochondrial function and cellular senescence”

11.00 – 11.30

Coffee break

11.30 - 12.15

Plenary Lecture 2

Chair-person: Angelo Azzi

David Sinclair, Boston, USA, “Reversal of vascular aging by small molecules that raise NAD”

12.15 – 13.30

Lunch break & “*Mech Ageing Devel*” Editorial Board Meeting

13.30 – 15.00

Poster session 2

15.00 – 15.30

Coffee break

15.30 – 17.30

Session 5: “MetAGEn & proteolysis”

Chair-persons: Martin Denzel & Tilman Grune

Martin Denzel, Cologne, Germany, “The hexosamine pathway modulates protein quality control in Mammals”

Louis Lapierre, Providence, USA, “Coordinating lipid storage with lysosomal lipolysis enhances longevity”

Hildegard Mack, Innsbruck, Austria, “Regulation of *Caenorhabditis elegans* lifespan by MBK-1/DYRK1A”

Tilman Grune, Berlin, Germany, “Role of Proteostasis in Aging and Senescence”

October 18th, 2017

09.00 – 11.00

Session 6: “Immunosenescence and Genetics”

Chair-persons: Claudio Franceschi & Graham Pawelec

Claudio Franceschi, Bologna, Italy, “A systemic -omic approach to aging and inflammaging”

**IUBMB Focused
Meeting on**
«Molecular aspects
of aging & longevity»



Graham Pawelec, Tübingen, Germany, “Immune Parameters Associated with Mortality in the Elderly are Context-Dependent: Lessons from Sweden, Holland and Belgium”

Tamas Fulop, Sherbrooke, Canada, “Role of the peripheral innate immunity in the progression of Alzheimer’s disease”

Irene Maeve Rea, Belfast, UK, “GeHA Nonagenarian Siblings tell about Living Long and Ageing Well: Life-style factors and Epigenetics?”

11.00 – 11.30

Coffee break

11.30 - 12.15

Plenary Lecture 3

Chair-Person: Parmjit Jat

Linda Partridge, London, UK, “Nutrient-sensing networks and healthy ageing: dissecting mechanisms”

12.15 – 13.30

Lunch break & “*Exp Gerontol*” Editorial Board Meeting

13.30 – 14.30

Session 7a: “EuroCellNet” (*Organized in collaboration with the COST Action CA 15214 “An integrative action for multidisciplinary studies on cellular structural networks”*)

Chair-persons: Giovanni Grillari & Irene Maeve Rea

Aleksandra Mladenovic, Belgrade, Serbia, “Protective effect of omega-3 polyunsaturated fatty acid and 18 α -glycyrrhetic acid in 5xFAD animal model of Alzheimer’s disease”

Milena Georgieva, Sofia, Bulgaria, “An intricate interaction between linker histones and chromatin remodelling complexes maintain genome stability, directs cellular aging and retains longevity”

Leire Moreno-Cugnon & Laura Yndriago, San Sebastian, Spain, “Impact of SOX2 haploinsufficiency in longevity and stem cell activity with ageing”

14.30 - 15.30

Session 7b: “Age-related diseases and therapies”

Chair-persons: Giovanni Grillari & Irene Maeve Rea

Bahareh Eftekharzadeh, Boston, USA, “Tau protein disrupts nucleocytoplasmic transport in Alzheimer’s Disease”

**IUBMB Focused
Meeting on**
«Molecular aspects
of aging & longevity»



Valérie Haydont, Paris, France, “New insights on skin fibroblast evolution during ageing”

Maria De Luca, Birmingham, USA, “A Drosophila model to study the relationship between angiotensin-converting enzyme inhibitor (ACEi) therapy, mitochondrial bioenergetics, and aging”

15.30 – 16.00

Coffee break

16.00 – 18.00

Session 8: “Signaling in human ageing and senescence”

Chair-persons: Kelvin Davies & Dimitris Kletsas

Kelvin Davies, Los Angeles, USA, “Age-dependent abrogation of proteostasis may be due to declining adaptive homeostasis”

Parmjit Jat, London, UK, “Dissecting the molecular basis and signalling pathways underlying cellular senescence: Investigating the role of transcription factors”

Dimitris Kletsas, Athens, Greece, “Senescent human stromal fibroblasts after exposure to ionizing radiation have an altered proteoglycan expression facilitating tumour progression”

Liset Rietman, Bilthoven, The Netherlands, “Biomarker trajectories before the onset of cognitive frailty in the Doetinchem Cohort Study”

20.30 –

Meeting Dinner

October 19th, 2017

Joint meeting with COST ACTION



09.00 – 11.00

Session 9a: “Geroprotectors: the road to clinical translation”

Chair-persons: Ulrike Trendelenburg and Ronald van Os

Ilaria Bellantuono, Sheffield, UK, “Geroprotectors, the MouseAGE experience”

Joel Belmin, Paris, France, “How clinicians can promote healthy aging: issues for today and the future ”

Angelo Azzi, Boston, USA, “Natural Antioxidants and Aging”

**IUBMB Focused
Meeting on**
«Molecular aspects
of aging & longevity»



Dudley Lamming, Wisconsin, USA, “Reduction of specific dietary macronutrients promotes healthspan and lifespan”

11.00 - 11.30

Coffee break

11.30 - 12.15

Plenary lecture 4

Chair-person: Ilaria Bellantuono

Jan Hoeijmakers, Rotterdam, The Netherlands, “DNA damage: Impact on aging, neurodegeneration and the effect of nutritional interventions”

12.15 - 13.30

Lunch break

13.30 – 14.30

Session 9b: “Geroprotectors, novel agents”

Chair-persons: Paul Potter and Roos Vandenbroucke

Peter de Keizer, Rotterdam, The Netherlands, “Targeting senescence to restore tissue homeostasis and rejuvenation”

Michaela Kneissel, Basel, Switzerland, “Targeting musculoskeletal diseases and injuries to restore mobility and independence in disease and old age”

14.30 - 15.15

Plenary lecture 5

Chair-person: Jose Trejo

Judy Campisi, Berkeley, USA, “Aging and the double edged sword of cellular senescence”

15.15 – 15.45

Coffee break

15.45 – 16.30

Session 10: “New approaches to preclinical testing of interventions”

Chair-person: Ralph Mueller

Michael Hagn, Munich, Germany, “Infrafrontier services for the ageing community”

Marco Viceconti, Sheffield, UK, “From bed to bench: how *in silico* medicine can help refining animal models”

16.30 – 17.30

Wine reception and poster presentations from the MouseAGE network

20.30 –

MouseAGE Dinner (*for MouseAGE members only*)