Thursday, November 9, 2017

14.00  Registration (location: Entrance Oostersingel 11 / near Fonteinpatio/Fountain Patio) and Poster mounting open (location: Blauwe Patio / Blue Patio)

17.30  Opening & Welcome (location: Blauwe Zaal / Blue Room) by the conference directors
Marian Joëls, PhD, Dean/Board of Directors University Medical Center Groningen
James L. Kirkland, MD, PhD, Mayo Clinic Robert and Arlene Kogod Center on Aging
Thomas von Zglinicki, PhD, University Ageing Biology Centre, Newcastle University

17.35  Announcement by the President of the University of Groningen
Sibrandes Poppema, MD, PhD

17.45  Keynote lecture
Genetic mapping of targets in mitochondria, metabolism and ageing
Johan Auwerx, MD, PhD, Professor at the Ecole Polytechnique Fédérale, Laboratory of Integrative and Systems Physiology, Lausanne, Switzerland

18.45  Drinks and Dinner buffet (location: Fonteinpatio / Fountain Patio)
The reception (drinks) is offered to you by the University of Groningen, the Municipality of Groningen and the Province of Groningen

Friday, November 10, 2017

08.00  Registration Open (Red Room)

Topic I Mitochondria, ROS & NAD

08.20  Opening by program director Barbara Bakker (UMCG) and chairs Gabriele Saretzki (Newcastle University) & Ellen Nollen (UMCG)

08.25  The NAD metabolome – Bioenergetics, signalling and emerging therapeutic applications
Mathias Ziegler, MD, PhD, Professor at the University of Bergen, Head of the Department of Biomedicine, Faculty of Medicine, Bergen, Norway

08.55  Ketone bodies: Signaling metabolites that affect aging and memory
John Newman, MD, PhD, Assistant Professor of Geriatrics, UCSF, San Francisco USA; Visiting Scientist, Buck Institute for Research on Aging, Novato USA

09.25  Mitochondrial DNA methylation
Marianne G. Rots, PhD, Professor of Molecular Epigenetics, Department of Pathology and Medical Biology, University Medical Center Groningen, Groningen, the Netherlands

09.55  CD38: from mechanism to therapy for aging-related metabolic decline
Eduardo Chini, MD, PhD, Professor of Anesthesiology, Mayo Clinic Robert and Arlene Kogod Center on Aging and Mayo Clinic Cancer Center, Rochester, Minnesota, USA

10.25  Summary Topic I by chairs

10.30  Coffee break (Blue Patio)
**8TH ANNUAL ALLIANCE FOR HEALTHY AGING CONFERENCE**

**METABOLISM AND AGING**

**November 9-11, 2017**

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**Topic II Metabolism and Cell Senescence**

11.00  **Opening** by chairs Nathan LeBrasseur (Mayo Clinic, Rochester, Minnesota) & Folkert Kuipers (UMCG)

11.05  **Cellular Senescence: At the Nexus between Obesity and Metabolic Dysfunction**

   *James L. Kirkland, MD, PhD, Noaber Foundation Professor of Aging Research, Director Mayo Clinic Robert and Arlene Kogod Center on Aging, Rochester, Minnesota, USA*

11.35  **Nuclear to Mitochondrial DNA damage signaling in Neurodegeneration and Aging**

   *Vilhelm A. Bohr, MD, PhD, Senior investigator, Laboratory of Molecular Gerontology, National Institute on Aging, Baltimore, USA*

12.05  **Pharmacological inhibition of mitochondrial complex I reduces senescence and reverses aging-related regulation of gene expression in mice**

   *Eugenia Trushina, PhD, Associate Professor, Mitochondrial Neurobiology and Therapeutics Laboratory Mayo Clinic, Rochester, Minnesota, USA*

12.35  **Senescence in post-mitotic cells: a telomere-centric story**

   *João Passos, PhD, Associate Professor, Newcastle University Institute for Ageing and Institute for Cell and Molecular Biosciences, Newcastle University, UK*

13.05  **Summary** Topic II by chairs

13.10- **Poster Pitch** by

13.25  Ana Patricia Huerta Guevara, University Medical Center Groningen, Groningen

Selma Osmanagic-Myers, University of Natural Resources and Life Sciences, BOKU, Vienna

Mariana Tarrago, Mayo Clinic

13.30  **Lunch, Poster viewing and discussion** (Blue Patio)

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**Topic III Nutrient sensing**

15.30  **Opening** by chairs Cor Calkhoven (UMCG) & Diana Jurk (Newcastle University)

15.35  **Nutritional modulation of nonhuman primate aging**

   *Rozalyn Anderson, PhD, Associate Professor, Department of Medicine, SMPH, University of Wisconsin-Madison, USA*

16.05  **Mechanistic insights into mTORC1 and autophagy in cell senescence**

   *Viktor Korolchuk, PhD, Associate Professor, Institute for Cell and Molecular Biosciences, Newcastle University Institute for Ageing, Newcastle University, UK*

16.35  **Systems approaches to the mammalian target of rapamycin (mTOR) network**

   *Kathrin Thedieck, PhD, Associate Prof of Biochemistry & Molecular Biology, Department of Paediatrics, University Medical Center Groningen, Groningen, the Netherlands*

17.05  **Developing tools to monitor changes in metabolism in cancer patients**

   *Hilde Jalving, MD, PhD, Medical Oncologist, Department of Medical Oncology, University Medical Center Groningen, Groningen, the Netherlands*

17.35  **Summary** by chairs

17.40  **Closing day 1** by program directors

18.30  **Dinner** (location in Groningen: Feithhuis)
**Saturday, November 11, 2017**

**Topic IV Systems Biology**

08.30  **Opening** (Red Room) by chairs Robert Pignolo (Mayo Clinic) & Paul Robbins (Scripps Research Institute, Jupiter, Florida)

08.35  **From the control of erythropoiesis to patient-specific anemia treatment**

*Ursula Klingmüller,* PhD, Division Head, Division Systems Biology of Signal Transduction, German Cancer Research Center (DKFZ), Heidelberg, Germany

09.05  **Systems modelling of cell signalling networks in ageing**

*Ursula Klingmüller,* PhD, Division Head, Division Systems Biology of Signal Transduction, German Cancer Research Center (DKFZ), Heidelberg, Germany

09.35  **Multilevel regulation of mitochondrial metabolism during muscle ageing**

*Barbara Bakker,* PhD, Professor of Medical Systems Biology, Department of Pediatrics and Systems Biology Center for Energy Metabolism and Ageing, University Medical Center Groningen, Groningen, the Netherlands

10.05  **Saccharomyces cerevisiae goes through distinct metabolic phases during its replicative life**

*Matthias Heinemann,* PhD, Professor of Biochemistry & Molecular Biology, Microbiology, Faculty of Science and Engineering, University of Groningen, Groningen, the Netherlands

10.35  **Summary** by chairs

10.40  **Coffee break** (Blue Patio)

**Topic V Metabolism and stem cell ageing**

11.10  **Opening** by chairs Laura Niedernhofer (Scripps Research Institute) & Gerald de Haan (UMCG)

11.15  **Mitochondrial Metabolic Checkpoint, Stem Cell Aging and Rejuvenation**

*Danica Chen,* PhD, Professor of Nutritional Sciences and Toxicology, Department of Nutritional Sciences & Toxicology, Berkeley University of California, USA

11.45  **Epigenetic stress response and stem cell aging**

*K. Lenhard Rudolph,* MD, Head of the research group on ‘Stem cell aging’ and Scientific Director Leibniz Institute on Aging – Fritz Lipmann Institute, Jena, Germany

12.15  **Using stem cells to understand and model age related macular degeneration**

*Majlinda Lako,* PhD, Professor of Stem Cell Science, Institute of Genetic Medicine, Newcastle University, UK

12.45  **Mitochondrial and senescence mechanisms in lung disease: aging at birth?**

*Y.S. Prakash,* MD, PhD, Chair of Physiology and Biomedical Engineering, Mayo Clinic Robert and Arlene Kogod Center on Aging, Rochester, Minnesota, USA

13.15  **Summary** by chairs

13.20  **Conference closing by conference and program directors followed by Closing lunch** (Blue Patio)