Sunday, June 11

15:00  Registration open

16:30-17:00  Opening ceremony and welcome from the Euromit co-chairs

17:00-18:30  **Session I - Cell biology, genetic and clinical perspective on mitochondria**
Chair:  Jan Smeitink, Radboud University, Nijmegen, Netherlands

17:00-17:30  Jodi Nunnari, University of California, Davis, USA:  *Mitochondrial behavior*

17:30-18:00  Nils-Göran Larsson, Max Planck Institute for Biology of Ageing, Cologne, Germany:  *Regulation of mtDNA gene expression*

18:00-18:30  Patrick Chinnery, University of Cambridge, United Kingdom:  *Mitochondrial DNA inheritance and the bottleneck*

19:00-22:00  Opening Reception at Früh am Dom

Monday, June 12

08:45-10:15  **Session II - Diseases and Diagnosis**
Chairs:  Holger Prokisch, Technical University Munich, Germany  
Marni Falk, The Children's Hospital of Philadelphia, USA

08:45-09:15  David Thorburn, University of Melbourne, Australia:  *Exome sequencing: how good are we and how can we increase diagnostic yield?*

09:15-09:45  Doug Turnbull, Newcastle University, United Kingdom:  *New insights into mitochondrial disease in adults*

09:45-10:00  Metodi Metodiev, Institut Imagine, Paris, France:  *Biallelic mutations in the mitochondrial ribosomal protein MRPS2 cause sensorineural hearing loss, lactic acidemia, hypoglycemia and multiple OXPHOS complex deficiencies*

10:00-10:15  Charlotte Alston, Newcastle University, United Kingdom:  *Biallelic mutations in NDUFA6 establish its role in early-onset mitochondrial complex I deficiency*

10:15-10:45  Coffee Break

10:45-12:45  **Session III - Mitochondrial DNA: replication, gene expression, and translation**
Chairs:  Jim Stewart, Max Planck Institute for Biology of Ageing, Cologne, Germany  
Maria Sola, Spanish National Research Council, Barcelona, Spain
10:45-11:15  **PLoS Genetics Lecture**: Maria Falkenberg, University of Gothenburg, Sweden: *Human mitochondrial DNA replication: deletion formation*

11:15-11:45  Aleksandra Filipovska, University of Western Australia, Perth, Australia: *Mitochondrial RNA-binding proteins in health and disease.*

11:45-12:15  Zofia Chrzanowska-Lightowlers, Newcastle University, United Kingdom: *Human mitoribosomes – what makes them stop?*

12:15-12:30  Sofia Zaganelli, University of Geneva, Switzerland: *The pseudouridine synthase RPUSD4 plays a pivotal role in mitochondrial gene expression*

12:30-12:45  Dusanka Milenkovic, Max-Planck Institute for Biology of Ageing, Cologne, Germany: *The in vivo role of the mitochondrial DNA nuclease MGMEI*

12:45-13:45  Lunch Break

12:45-14:00  **O2k-Workshop on high-resolution respirometry and O2k-Fluorometry**

13:45-16:30  **Poster Session I**

16:30-17:00  Coffee Break

17:00-19.00  **Session IV - Mechanisms of mitochondrial diseases**

   **Chairs:** Agnès Rötig, Institut Imagine, Paris, France  
              Lawrence Bindoff, University of Bergen, Norway

17:00-17:30  Valeria Tiranti, University of Milano-Bicocca, Italy: *Experimental models in mitochondria related neuromuscular disorders: from pathogenic mechanism to therapeutic approaches*

17:30-18:00  Ramon Martí, Vall d’Hebron Research Institute, Barcelona, Spain: *Nucleotide metabolism and mitochondrial DNA maintenance diseases*

18:00-18.30  Massimo Zeviani, University of Cambridge, United Kingdom: *New players and mechanisms in mitochondrial biogenesis and disease*

18:30-18:45  Romain Cartoni, Boston Children's Hospital and Harvard Medical School, Boston, USA: *The Mammalian Specific Protein Armcx1 Regulates Mitochondrial Transport During Axon Regeneration*

18:45-19:00  Ana Peñas, FIB Hospital 12 de Octubre, Madrid, Spain: *Functional involvement of the actin-binding protein gelsolin in respiratory chain dysfunction: A putative biomarker for Oxphos disorders*

**Tuesday, June 13**

09:00-10:30  **Session V - Mitochondria biochemistry and diseases**
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Chairs: Jan Riemer, University of Cologne, Germany
Cristina Ugalde, FIB Hospital 12 de Octubre, Madrid, Spain

09:00-09:30 Uli Brandt, Radboud University of Nijmegen, Netherlands: *The mechanism and regulation of the forward and reverse reaction of mitochondrial complex I*

09:30-10:00 Eric Shoubridge, McGill University, Montreal, Canada: *Exploring the mitochondrial-ER interactome*

10:00-10:15 Karolina Szczepanowska, University of Cologne, Germany: CLPP is a modulator of OXPHOS biogenesis

10:15-10:30 Abhishek Aich, University Medical Center Göttingen, Germany: *At the crossroads of cytochrome c oxidase assembly*

10:30-11:00 Coffee Break

11:00-12:30 **Session VI - Mitochondrial communications**

Chairs: Mike Ryan, Monash University, Melbourne, Australia
Guy Lenaers, University of Angers, France

11:00-11:30 Luca Scorrano, University of Padua, Italy: *A localized autophagic filter depletes axons from damaged mitochondria*

11:30-12:00 Navdeep Chandel, Northwestern University, Chicago, USA: *Mitochondria as signaling organelles*

12:00-12:15 Atan Gross, Weizmann Institute of Science, Rehovot, Israel: *The role of mitochondrial MTCH2 in health and disease*

12:15-12:30 David Pla Martín, University of Cologne, Germany: *CLUH inhibits mTORC1 and degradation of its target mRNAs by mediating stress granule assembly during starvation*

12:30-13:30 Lunch Break

13:30-16:30 **Poster Session II**

16:30-17:00 Coffee Break

17:00-19:15 **Session VII - Mitochondrial and stress responses**

Chairs: Elena Rugarli, University of Cologne, Germany
Brendan Battersby, University of Helsinki, Finland

17:00-17:45 **EMBO Keynote Lecture:** Anu Suomalainen Wartiovaara, University of Helsinki, Finland: *Integrated stress response in mtDNA maintenance disorders*

17:45-18:15 Thomas Langer, University of Cologne, Cologne, Germany: *Mitochondrial phospholipid metabolism and cardiomyopathies*
18:15-18:30 Sarah Pearce, University of Cambridge, United Kingdom: *Deadenylation specifies a human mitochondrial repair pathway for non-coding RNAs*

18:30-18:45 Sebastien Herzig, Salk Institute for Biological Studies, La Jolla, USA: *Regulation of mitochondrial dynamics by the energy sensor AMPK*

18:45-19:00 Alessia Angelin, The Children's Hospital of Philadelphia, USA: *FOXP3 increases oxidative phosphorylation and NAD oxidation, adapting regulatory T cells to low glucose high lactate environments*

**Wednesday, June 14**

09:00-12:45 **Session VIII - Therapeutic strategies for mitochondrial diseases - part 1**

*Chairs: Michal Minczuk, University of Cambridge, United Kingdom  
Howy Jacobs, University of Helsinki, Finland*

09:00-09:30 Carlos Moraes, University of Miami, USA: *Modulating mtDNA heteroplasmy in vivo with gene editing enzymes*

09:30-10:00 José Antonio Enriquez - Spanish National Centre for Cardiovascular Research, Madrid, Spain: *Are there good and bad mtDNA haplotypes?*

10:00-10:15 Emanuelle Sarzi, Institute for Neurosciences, Montpellier, France: *Intravitreal injection of a human AAV2- OPA1 vector prevents optic nerve alteration and retinal ganglion cell degeneration in an Opa1+/- mouse model*

10:15-10:30 Jukka Kallijarvi, Folkhälsan Research Center, Helsinki, Finland: *Rescue of premature lethality and late-onset organ manifestations by alternative oxidase in a mouse model of respiratory chain complex III deficiency*

10:30-11:00 Coffee Break

11:00-11:30 Valerio Carelli, University of Bologna, Italy: *Leber’s Hereditary Optic Neuropathy – current and evolving treatments*

11:30-12:00 Shoukhrat Mitalipov, Oregon Health & Science University, Portland, USA: *Somatic and Germline mtDNA mutations*

12:00-12:30 Rong Tian, University of Washington, USA: *Target mitochondria for therapy*

12:30-12:45 Claudia Catarino, Ludwig-Maximilians-University, Munich, Germany: *Idebenone is effective and well tolerated in Leber’s Hereditary Optic Neuropathy (LHON): Results of a 3-year Expanded-Access Program*

12:45-13:45 Lunch Break

13:45-16:30 **Poster Session III**
16:30-17:00  Coffee Break
17:00-18:00  Patients’ viewpoint on mitochondrial diseases
18:00-18:15  Announcement of Travel Grants
19:00  EUROMIT Party in Flora

Thursday, June 15

08:45-10:45  Session IX - Therapeutic strategies for mitochondrial diseases - part 2
Chairs:  Ann Saada, Hadassah Medical Center, Jerusalem, Israel
         Thomas Klopstock, Ludwig-Maximilians-University, Munich, Germany
09:00-09:30  Michio Hirano, Columbia University, New York, USA: Development of a Pharmacological Therapy for Thymidine Kinase 2 Deficiency
09:30-10:00  Jan Smeitink, Radboud University Nijmegen, Netherlands: Mitochondrial disease small molecule drug development
10:00-10:30  Mary Herbert, Newcastle University, United Kingdom: IVF-based technologies to prevent germline transmission of mtDNA disease
10:30-11:00  Coffee Break
11:00-12:00  Session X - Late breaking news
Chair:  Aleksandra Trifunovic, University of Cologne, Germany
11:00-11:15  Laura Kremer, Helmholtz Center, Munich, Germany: Genetic diagnosis of mendelian disorders using RNA sequencing
11:15-11:30  Olesia Ignatenko, University of Helsinki, Finland: Astrocyte vs. neuronal mitochondrial DNA dysfunction reveals strikingly different phenotypes unraveling specialized role of mitochondria in astrocytes
11:30-11:45  Pierre Rustin, INSERM UMR1141 and Université Paris 7, France: Mitochondria are physiologically maintained at close to 50°C
11:45-12:00  Concluding Remarks