Program

Day 1  8.03.2019 Friday

16.00-19.30  Registration and posters

18.30 Greetings from Congressi Stefano Franscini (CSF)

19.00-20.30  Dinner

20.30-21.30  S. Rivella (keynote speaker) Investigating the complex relationship between erythropoiesis, iron metabolism and inflammation
Day 2 09.03.2019 Saturday

08.15-08.30 Greetings from the organizers

08.30-08.45 Intro Section Erythropoiesis

08.45-09.30 J. Palis (keynote speaker) BMI-1 regulates ex vivo self-renewal of human erythrocytes (abstract 1.1)

09.30-10.15 T. Schroeder (speaker) Long-term single-cell quantification: New tools for old questions (1.2)

10.15-11.00 R. Skoda (speaker) Molecular pathogenesis of erythrocytosis and polycythemia (3.2)

11.00-11.30 coffee

11.30-12.15 C. Camaschella (speaker) Hepcidin and anemia (1.4)

12.15-13.00 D. Girelli (speaker) Anemia of the elderly (1.5)

13.00-13.15 L. Blanc HMGB1 Causes Anemia of Inflammation By Modulating Erythropoietin Signal Transduction (1.6)

13.15-13.30 G.W. Bornkamm The Role of glutathione peroxidase 4 and vitamin E in reticulocyte maturation and iron homeostasis (1.7)

13.30-14.30 lunch

14.30-15.00 M. von Lindern (speaker) Large scale culture differentiation of erythrocytes for transfusion purposes (1.8)

15.00-15.30 A. D’Alessandro (speaker) RBC storage: from Omics technologies to personalized transfusion medicine (1.9)

15.30-16.00 coffee

16.00-16.15 Intro Section 2 Adaptation

16.15-16.45 H. Mairbaurl (speaker) What are the normal hemoglobin values in high altitude residents? (2.1)

16.45-17.15 A. Schechtter(speaker) The new biology of nitrate and nitrite as precursors of nitric oxide (2.2)

17.15-17.45 C. Noguchi(speaker) The many faces of erythropoietin response (2.3)

17.45-18.00 E. Nader Effect of a 10km running trial on blood rheology, red blood cell electrophysiology, eryptosis and microparticles emission in endurance trained athletes (2.4)

18.00-18.20 E. Fibach Red blood cells as redox modulators (2.5)

18.30-20.00 wine tasting

20.00-21.30 dinner
Day 3 10.03.2019 Sunday

8.15-8.30  Intro Section 3 Clinical Hematology

8.30-9.15  S.-L. Thein (keynote speaker) Recent Advances in Treatment of Sickle cell disease (3.1)

9.15-10.00 M. Zylinska (speaker) ER stress response and RBC-platelet differentiation in neoplasms (1.3)

10.00-10.45 E. van den Akker (speaker) Regulation of globin genes upon KLF1 haploinsufficiency (3.3)

10.00-10.15 I. Hegemann MemSID clinical trial: safety and tolerability and clinical outcome of the memantine therapy for sickle cell disease patients (3.4)

10.15-10.30 R. Renella Surfaceome Mapping of Healthy and Sickle Cell Disease Erythropoiesis: preliminary data (3.5)

10.30-11.00 coffee

11.00-11.30 P. Connes (speaker) Blood Rheology: key parameters, impact on blood flow and role in sickle cell disease (3.6)

11.30-11.45 V. Pretini Red Blood Cells: Chasing Interactions (3.7)

11.45-12.00 R. Buks ABCG2 is an Importer of Ruxolitinib, and Hydroxyurea Treatment Increases ABCG2 Levels in Polycythemia Vera Red Blood Cells (3.8)

12.00-12.15 A. Koren Fetal Red Blood Cells in Sickle Cell Anemia (SCA) and Sickle Cell β Thalassemia (Sβ-Thal). The effect of Hydroxyurea treatment (3.9)

12.15-12.30 M. Robert Comprehensive proteomic profiling of erythrocytes following hypotonic dialysis-based drug encapsulation process (3.10)

13.00-14.00 lunch

14.00-15.30 Excursions Monte Verita/museum

15.30-15.45 Intro Section 4 Membranes and Channels

15.45-16.30 G. Minetti (speaker) Membrane processes in the maturation of circulating reticulocytes: involvement of membrane rafts (4.1)

16.30-17.15 S. Egee (speaker) Membrane potential measurements enable fine characterization of channelopathies (4.2)

17.15-18.00 C. Wagner (speaker) 3D tomography of blood flow (5.1)

18.00-18.15 F. Agliarolo A Novel Role for PIEZO1 in Calcium Homeostasis During Erythropoiesis (4.3)

18.15-18.30 V. Picard Genotype-phenotype relationship in Piezo1 versus Gardos hereditary stomatocytosis : A retrospective series of 104 patients (4.4)

19.00-20.30 dinner/20.30-22.00 Posters
**Day 4 11.03.2019 Monday**

08.15-08.30  Intro Membranes and Channels part 2

08.30-08.50  D. Tyteca (speaker)  *Oxidative stress and plasmatic sphingomyelinase impair calcium exchange and erythrocyte morphology and deformability in elliptocytosis* (4.5)

08.50-09.10  S. Svetina (speaker)  *On red blood cell non-genetic variability* (4.6)

09.10-09.55  P. Bianchi (speaker)  *Diagnosis of RBC hydrations defects* (4.7)

09.55-10.10  M.G. Rotordam  *A high-throughput patch clamp method to investigate Piezo1 channels from healthy and anaemic red blood cells* (4.8)

10.10-10.45  coffee

10.45-11.00  Intro Section 5  *Physics meets red blood cells*

11.00-11.45  L. Kaestner  *Diagnostic tools and their future* (5.2)


12.30-12.50  G. Bouyer  *New Permeation Pathways in the host red cell during Plasmodium falciparum gametocytogenesis: greater than expected* (4.9)

12.50-12.20  L. Garçon  *PIEZO1 gain of function mutations in Hereditary Xerocytosis lead to a delay of in vitro erythroid differentiation* (4.10)

13.30-14.30  lunch

15.00-15.15  G. Simionato  *Automatic 3D classification of red blood cell shapes by artificial neural networks* (5.5)

15.15-15.30  M. Rab  *Rapid and reproducible characterization of sickling during automated deoxygenation in sickle cell disease patients* (5.6)

**15.30-16.00  Meeting of ERCS members**

16.00-17.00  “Good researching practices” for working with RBC (RELEVANCE and friends: podium discussion)

**17.00-17.30  coffee**

17.30-18.30  Young researchers meet the experts

**19.00-20.30  Gala-dinner**

**20.30-22.30  Young investigators: short poster presentations and poster contest**

**Awards to win:**  Stefano Franscini Award (translational research), Frontiers in Physiology Award (basic research), Vifor Pharma Award (new technologies).
Day 5 12.03.2019 Tuesday

8.15-8.30 Intro Technologies for RBC investigation

8.30-9.00 A. Bogdanova (speaker) Clinical significance of red blood cell heterogeneity (5.7)

9.00-9.20 A. Makhro Discontinuous nature of red blood cell density and shape: implication for image analysis (5.8)

9.20-9.40 J. Delobel Validation of a Rapid, Open-Source, Paper-Based Screening Assay for Sickle Cell Disease: from retrospective global health annotation to prospective neonatal detection (5.9)

9.40-10.10 MeCheM – first announcement and introduction (N. Kilcawley 5.10) and first results of clinical testing (L. Livshits 5.11)

10.10-10.30 coffee

10.30 Final lecture

10.30-11.30 N. Mohandas (keynote speaker) Red blood cell research: the outlook

11.30-12.00 Awards, final words and meeting closing

12.00 lunch and departure