

# Meeting of the European Red Cell Society 4-8 May 2026

*Belambra “Le Domaine de Mousquety”  
L’Isle sur la Sorgue (84)  
France*

*Chairs: Wassim El Nemer & Stéphane Egée*

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## Day 1: Monday May 4<sup>th</sup>

**15:00 - 18:00**      **Arrival**

**18:00 – 19:00**      **Welcome address**  
**Stéphane Egée, Wassim El Nemer**

**Keynote lecture**  
**Michel Aurrand-Lions** (France)  
*Bone marrow niche organization in normal and pathological haematopoiesis*

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**19:00 – 20:30**      **Dinner**

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## Day 2: Tuesday May 5<sup>th</sup>

**07:00 – 08:00**      **Breakfast**

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### **Scientific Session 1 – Erythropoiesis and Metabolic Regulation**

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**CHAIRS: Sandrina Kinet, Peng Ji**

08:10 – 08:35      Invited speaker: **Julia Christine Gutjahr** (Switzerland)  
*Multiple Facets of CXCR4 Signaling During Erythropoiesis*

08:35 – 09:00      Invited speaker: **Pedro Gonzalez-Menendez** (Spain)  
*The hypusine pathway at the crossroads of protein synthesis and erythroid differentiation in aging*

09:00 – 09:15      **Arthur Schott** (France)  
*Metabolic rewiring of the serine-glycine axis sustains erythropoiesis upon GLYT1 blockade*

09:15 – 09:30      **Simona Maria Di Modica** (Italy)  
*Erythroid metabolic activation shapes systemic glucose levels*

- 09:30 – 09:45 **Jade Serano** (France)  
*A single-cell metabolic atlas of human erythropoiesis identifies a bioenergetic switch and a critical window of mitochondrial vulnerability*
- 09:45 – 10:00 **Axel Joly** (France)  
*Cysteine-regulated U34 tRNA thiolation defines a novel epitranscriptomic control of human erythroid differentiation*

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**10:00 – 10:30** *Coffee break in the Exhibit Hall*

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### **Scientific Session 2 – Erythropoiesis: Mechanisms and Disorders**

**CHAIRS: Frédérique Verdier, Auria Godard**

- 10:30 – 10:55 Invited speaker: **Olivier Hermine** (France)  
*VEXAS anemia is a mosaic erythroblastopenia*
- 10:55 – 11:20 Invited speaker: **Rami Khoriaty** (USA)  
*Congenital Dyserythropoietic Anemia Type II: From Molecular Pathogenesis to Therapeutic Discovery*
- 11:20 – 11:35 **Loane Schertzer** (The Netherlands)  
*Elucidating the involvement of ion channels and transporters during erythropoiesis*
- 11:35 – 11:50 **Robert Seute** (France)  
*Role of KCNN4 in erythroid differentiation*
- 11:50 – 12:05 **Valentina Lefkaditi** (The Netherlands)  
*CRISPR/Cas9-mediated generation of IKZF1 and WIZ knockout HUDEP-2 clonal cell lines for the investigation of their role in human erythropoiesis and gamma-globin expression*
- 12:05 – 12:20 **Mariano Ostuni** (France)  
*Hemin delays early erythroid differentiation and induces mitochondrial clearance via LRP1-mediated ERK signaling*
- 12:20 – 12:35 **Olivier Hermine** (France)  
*GR-Ex: Integrating Science, Innovation and Patient Impact in Red Cell Research*

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**12:40 – 14:00** *Lunch*

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### **Scientific Session 3 – Disordered Erythropoiesis and Red Cell Pathophysiology**

**CHAIRS: Deena Iskander, Loane Schertzer**

- 14:00 – 14:25 Invited speaker: **Peng Ji** (USA)  
*Erythroblastic islands in physiology and pathology*

- 14:25 – 14:50      Invited speaker: **Lars Hanssen** (UK)  
*Mechanisms of disordered erythropoiesis in Diamond-Blackfan Anaemia Syndrome*
- 14:50 – 15:05      **Marije Bartels** (The Netherlands)  
*iPSC models are excellent tools to study impaired erythropoiesis and molecular defects in Diamond-Blackfan anemia syndrome (DBAS)*
- 15:05 – 15:20      **Smritikana Dutta** (India)  
*Heme tunes proteostasis and oxidative stress signaling through the P. falciparum artemisinin determinant PfKelch13*
- 15:20 – 15:35      **Mélanie Franco** (France)  
*Lipid overload of red blood cells, spleen function and congestion are key determinants of splenomegaly in Gaucher disease*
- 15:35 – 15:50      **Elena Martinez Balsalobre** (Spain)  
*Modulation of NLRP1 inflammasome as a strategy in congenital sideroblastic anemia*

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**16:00 – 17:00**      **Poster session 1 & Coffee break in the Exhibit Hall**

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17:00 – 19:00      Networking and free time

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**19:00 – 20:30**      **Dinner**

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### Day 3: Wednesday May 6<sup>th</sup>

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**07:00 – 08:00**      **Breakfast**

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### Scientific Session 4 – Red Cell Storage and Transfusion Biology

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**CHAIRS: Camille Roussel, Tim Satchwell**

- 08:10 – 08:35      Invited speaker: **Pascal Amireault** (France)  
*Storage alters a distinct subpopulation of morphologically-altered RBCs targeted for clearance after transfusion*
- 08:35 – 09:00      Invited speaker: **Emile van dan Akker** (The Netherlands)  
*Metabolomics-Guided Optimization of iPSC-Derived HbF-RBCs in bioreactors for a Developmentally Matched Transfusion Product*
- 09:00 – 09:15      **Syed Qadri** (Canada)  
*Effect of prolonged storage on red blood cell recovery in murine polymicrobial sepsis*
- 09:15 – 09:30      **Robin van Bruggen** (The Netherlands)  
*Duffy antigen receptor for chemokines (DARC) as novel signalling hub in red blood cells*

09:30 – 09:45      **Sandy Peltier** (France)  
*Proteasome inhibition drives RBC alterations during storage and under post-transfusion-like conditions*

09:45 – 10:00      **Coen Vliegen** (The Netherlands)  
*Investigating subsets of red blood cells and their functional differences*

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**10:00 – 10:30**      **Coffee break in the Exhibit Hall**

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### **Scientific Session 5 – Red Cell Membrane Biology in Health and Disease**

**CHAIRS: Richard van Wijk, H el ene Guizouarn**

10:30 – 10:55      Invited speaker: **Paola Bianchi** (Italy)  
*Breaking the Balance: Red Blood Cell Instability in Hereditary Spherocytosis and Beyond*

10:55 – 11:20      Invited speaker: **Lo ic Gar on** (France)  
*Expression and function of PIEZO1 during human erythropoiesis*

11:20 – 11:35      **Guillaume Bouyer** (France)  
*PIEZO1-driven echinocytosis in red blood cells is independent of calcium and water fluxes*

11:35 – 11:50      **Reetta Penttinen** (Germany)  
*Investigation of pharmacological PIEZO1 modulators using automated patch-clamp*

11:50 – 12:05      **Bit a Asghariastanehei** (France)  
*Red blood cell PIEZO1 activation drives faster coagulation and structural alterations in blood clots through red blood cell deformability impairment*

12:05 – 12:20      **Titine Ruiters** (The Netherlands)  
*Ex vivo glucose tracing in red blood cells from patients with hereditary xerocytosis reveals enhanced glycolytic flux*

### **Technological Advances in Red Cell Research**

**CHAIRS: Wassim El Nemer, St ephane Eg e**

12:20 – 12:35      **Olek Shestakov, OxyDial**  
*OxyDial EQ: a rapid, micro-volume, calibration-free platform for full oxygen equilibrium curve measurement in red cell research and hemoglobinopathy care*

12:35 - 12:50      **Atze van der Pol, RR Mechatronics**  
*Oxidantscan: ektacytometry to study the effects of oxidative stress on RBC deformability*

12:50 - 13:00      **Annie Viallat, ICOVELL**  
*DYNARED: Point-of-Care Assessment of Red Blood Cell Deformability for Sepsis Detection*

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**13:00 – 14:30**      **Lunch**

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**Scientific Session 6 – Red Cell Biophysics and Mechanics**

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**CHAIRS: Lars Kaestner, Elie Nader**

14:30 – 14:55      Invited speaker: **Simon Mendez** (France)  
*Can complete blood counts measure red blood cell mechanics?*

14:55 – 15:20      Invited speaker: **Stephan Gekle** (Germany)  
*Modeling the red cell in silico*

15:20 – 15:35      **Manouk Abkarian** (France)  
*Enhanced rheological and molecular transport in microcirculatory-scale red cell suspension flows*

15:35 – 15:50      **Jiahai Shi** (Singapore)  
*ESCRT-mediated scission of stress-induced membrane protrusions drives protective RBC vesiculation*

15:50 – 16:05      **Min Qiao** (Germany)  
*Superresolution microscopy of cytoskeleton elements in red blood cells from neuroacanthocytosis syndrome patients*

16:05 – 16:20      **Angelica Niño Hernandez** (France)  
*Bilayer-cytoskeleton mechanical coupling regulates PIEZO1 activity and red blood cell deformability*

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**16:30 – 17:30**      **Poster session 2 & Coffee break in the Exhibit Hall**

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17:30 - 19:00      Networking and free time

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**19:00 – 20:30**      **Dinner**

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**Day 4: Thursday May 7<sup>th</sup>**

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**07:00 – 08:00**      **Breakfast**

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**Scientific Session 7 – Bone Marrow Niche and 3D Models**

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**CHAIRS: Claudia Bernecker, Emile van den Akker**

08:10 – 08:35      Invited speaker: **Alessandra Balduini** (Italy)  
*3D Silk-Based Bone Marrow Models Identify Autophagy As a Critical Mechanism in Red Blood Cell Production*

- 08:35 – 09:00      Invited speaker: **Isabel Dorn** (Austria)  
*Self-organized hemanoids derived from human iPSCs provide a niche generating definitive extraembryonic hematopoiesis*
- 09:00 – 09:15      **Tobias Schmidt** (Austria)  
*Investigating the terminal maturation of erythrocytes using a novel spleenoid culture*
- 09:15 – 09:30      **Maria De Grandis** (France)  
*Rebuilding human erythropoiesis in a 3D bone marrow organoid: microenvironmental control in health and disease*
- 09:30 – 09:45      **Steven Akkaya** (France)  
*Early-life hematopoietic alterations in sickle cell anemia*
- 09:45 – 10:00      **Peifen Zhang** (The Netherlands)  
*A novel XACT lncRNA transcript with functions transcending X-chromosome inactivation*

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**10:00 – 10:30**      **Coffee break in the Exhibit Hall**

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**Scientific Session 8 – Hemoglobinopathies: Mechanisms**

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**CHAIRS: Maria De Grandis, Andreas Glenthøj**

- 10:30 – 10:55      Invited speaker: **Ana Belén Pérez Oliva** (Spain)  
*Nanomedicine-Based mRNA Therapy to Restore Erythrocyte Maturation in  $\beta$ -Thalassemia*
- 10:55 – 11:20      Invited speaker: **Erica Sparkenbaugh** (USA)  
*Sickle Cell Disease – a Vascular Biology Perspective*
- 11:20 – 11:35      **Marie Martin** (France)  
*Hematocrit partially explains the hypercoagulable profile of sickle cell patients*
- 11:35 – 11:50      **Kuntal Dey** (Switzerland)  
*S-glutathionylation inhibits plasma membrane Ca<sup>2+</sup> ATPase 4b activity in erythrocytes from healthy subjects and sickle cell patients*
- 11:50 – 12:05      **Rezin Majied** (The Netherlands)  
*Investigation of RBC dehydration in SCD-derived erythroid progenitor cell lines*
- 12:05 – 12:20      **Julien Grenier** (France)  
*Ineffective erythropoiesis reshapes erythroid niche in sickle cell disease*

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**12:30 – 13:45**      **Lunch**

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## Scientific Session 9 – Hemoglobinopathies: Clinical and Translational Insights

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**CHAIRS:** Sara El Hoss, Rami Khoriaty

- 13:45 – 14:10      Invited speaker: **Andreas Glenthøj** (Denmark)  
*Whole-genome sequencing and functional testing in clinical red cell diagnostics*
- 14:10 – 14:35      Invited speaker: **Slimane Allali** (France)  
*Innate immunity and inflammation during acute chest syndrome in sickle cell disease*
- 14:35 – 14:50      **Philippe Connes** (France)  
*Increasing daily step counts improves physical fitness, reduces pain and arterial stiffness in sickle cell patients*
- 14:50 – 15:05      **Nicolas Hebert** (France)  
*Novel single red blood cell lifespan measurement assay through glycated hemoglobin assessment by flow cytometry*
- 15:05 – 15:20      **Tingyue Li** (The Netherlands)  
*Development of novel CELMoDs for reactivation of fetal hemoglobin expression*
- 15:20 – 15:35      **Romain Carin** (France)  
*Persisting elevation of total hemoglobin mass after altitude training in elite swimmers: a potential role of prolonged erythrocyte survival*

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**15:35 – 16:00**      ***Coffee break in the Exhibit Hall***

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16:00 – 16:45      **World Thalassemia Day – Patient Perspectives Roundtable**

### **Beyond the Disease: Patient Perspectives in Sickle Cell Disease and Thalassemia**

- **Benoît Meunier:** *ADODREP : Therapeutic patient education stays to prepare the pediatric-to-adult transition of adolescents with sickle cell disease*
- **Mrs Ba Dianaba:** *Living with Sickle Cell Disease: Daily Life, Challenges, and Care Experience*
- **Mr Adel Mansouri and Mr Mourad Guemmoud:** *Managing Thalassemia: Challenges and Care Experience*

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**16:45 – 17:15**      ***Poster Awards – Closing remarks – Business Meeting***

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**19:00 – 01:00**      ***Provençal Apéritif & Pétanque + Closing Celebration***

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## **Day 5: Friday May 8<sup>th</sup>**

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**07:00 – 09:00**      *Breakfast*

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### **Departure**

**08:00 Shuttles to Marseille Provence Airport and to Avignon TGV station**