

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

Day 1: Monday May 4th

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

19:00 – 20:30 **Dinner**

Day 2: Tuesday May 5th

07:00 – 08:00 **Breakfast**

Scientific Session 1 – Erythropoiesis and Metabolic Regulation

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 **Axel Joly** (France)
Cysteine-regulated U34 tRNA thiolation defines a novel epitranscriptomic control of human erythroid differentiation

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 **Arthur Schott** (France)
Metabolic rewiring of the serine-glycine axis sustains erythropoiesis upon GLYT1 blockade

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

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

12:40 – 14:00 *Lunch*

Scientific Session 3 – Disordered Erythropoiesis and Red Cell Pathophysiology

CHAIRS: Deena Iskander, Loane Schertzer

- 14:00 – 14:25 Invited speaker: **Peng Ji** (USA)
Targeting Plek2 signalosome for polycythemia in myeloproliferative neoplasms

- 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

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

17:00 – 19:00 Networking and free time

19:00 – 20:30 **Dinner**

Day 3: Wednesday May 6th

07:00 – 08:00 **Breakfast**

Scientific Session 4 – Red Cell Storage and Transfusion Biology

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

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

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 c 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  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 Ruiter** (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 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**
- 12:50 - 13:00 **Annie Viallat, ICOVELL**

*DYNARED: Point-of-Care Assessment of Red Blood Cell
Deformability for Sepsis Detection*

13:00 – 14:30 **Lunch**

Scientific Session 6 – Red Cell Biophysics and Mechanics

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*

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

17:30 - 19:00 Networking and free time

19:00 – 20:30 **Dinner**

Day 4: Thursday May 7th

07:00 – 08:00 **Breakfast**

Scientific Session 7 – Bone Marrow Niche and 3D Models

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

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

Scientific Session 8 – Hemoglobinopathies: Mechanisms

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 β -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 Ca²⁺ 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

12:30 – 13:45 **Lunch**

Scientific Session 9 – Hemoglobinopathies: Clinical and Translational Insights

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

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

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*

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

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

Day 5: Friday May 8th

07:00 – 09:00 *Breakfast*

Departure

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