# 2ND TRANSLATIONAL RESEARCH CONFERENCE

**ERYTHROPOIESIS CONTROL AND INEFFECTIVE ERYTROPOIESIS: FROM BENCH TO BESIDE**

March 5-7, 2021

Chairpersons: Maria-Domenica Cappellini (Milan), Stuart Orkin (Boston), Valeria Santini (Florence)

## Friday, March 5\(^{th}\), 2021

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<td>Welcome</td>
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<td>SESSION I – Bone marrow response to viral infections</td>
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<td>Chairs: Stuart Orkin (Boston), Valeria Santini (Florence)</td>
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<td>13:45-14:05</td>
<td>Introduction</td>
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<td>13:45-14:05</td>
<td>Immunity and variability response to infection, Jean-Laurent Casanova</td>
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<td>14:05-14:25</td>
<td>Inhibition of haemopoiesis by viruses, Mo Yang</td>
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<td>14:25-14:32</td>
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<td>SESSION II – Haematological response to SARS CoV2 infection</td>
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<td>Chair(s): Maria-Domenica Cappellini (Milan), TBA</td>
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<td>16:15-16:20</td>
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<td>Iron and viral infection</td>
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<td>16:35-16:50</td>
<td>Iron and Heme disruption in COVID-19, Emanuela Tolosano (Turin)*</td>
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<td>16:50-17:05</td>
<td>Anaemias and COVID-19</td>
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<td>17:05-17:20</td>
<td>Focus on blood management during the COVID outbreak, Giancarlo M. Liumbruno</td>
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<td>17:20-17:40</td>
<td>Hematopoiesis in MDS and Covid 19 infection, Eric Solary (Paris)*</td>
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<td>17:40-18:10</td>
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SESSION III – Dyserythropoiesis in clonal haemopoiesis and MDS
Chairs: Valeria Santini (Florence), Michaela Fontenay (Paris)

18:10-18:15  Introduction  Valeria Santini (Florence)
            Michaela Fontenay (Paris)

18:15-18:30  Into the mechanisms of dyserythropoiesis:
            the SF3B1 mutation and RSP-14 deficiency models  Michaela Fontenay (Paris)

18:30-18:45  TGF pathway in ineffective erythropoiesis  Olivier Hermine (Paris)

18:45-19:00  Hypoxic niche and microenvironment in clonal
            haemopoiesis and MDS  Marc H.G.P. Raaijmakers (Rotterdam)

19:00-19:07  Selected brief oral communication  TBA

19:07-19:40  Panel discussion

19:40-20:40  3 Simultaneous Breakfast Meet the Expert Sessions

1. Management of non-transfusion-dependent thalassaemias  Ali Taher (Beirut)
2. New treatments in haemoglobinopathies  Antonio Piga (Turin)
3. Anaemia and autoimmunity management in MDS  Pierre Fenaux (Paris)

Saturday, March 6th, 2021

SESSION IV – Erythropoiesis Control
Chairs: Douglas Higgs (Oxford), Mark Fleming (Boston)

            Mark Fleming (Boston)

13:35-13:50  Congenital sideroblastic anaemias  Mark Fleming (Boston)

13:50-14:05  GATA 1 experience  Emery Bresnick (Madison)

14:05-14:20  Single cell analysis during erythropoiesis  Vijay G. Sankaran (Boston)*

14:20-14:27  Selected brief oral communication  TBA

14:27-15:00  Panel discussion

SESSION V – Erythropoiesis control : phase 2
Chairs: TBA

15:00-15:05  Introduction  TBA

15:05-15:20  Erythroid progenitors  Lionel Blanc (New York)

15:20-15:35  Eryptosis  Florian Lang (Tübingen)*

15:35-15:50  Bone marrow 3D modelling  Alessandra Balduini (Pavia)*

15:50-16:20  Panel discussion
SESSION VI – Iron metabolism and erythropoiesis  
Chair: Clara Camaschella (Milan)

17:30-17:35  Introduction  
Clara Camaschella (Milan)

17:35-17:50  Erythropoiesis and iron metabolism interaction  
Laura Silvestri (Milan)

17:50-18:05  Macrophage and iron  
Martina Muckenthaler (Heidelberg)

18:05-18:20  Atypical microcytic anaemias  
Graça Porto (Porto)

18:20-18:27  Selected brief oral communication  
TBA

18:27-19:00  Panel discussion

19:00-20:00  3 Simultaneous Meet the Expert sessions

1. The regulation of globin gene expression in erythropoiesis  
Douglas Higgs (Oxford)

2. Mechanism and manipulation of haemoglobin switching  
Stuart Orkin (Boston)

3. Mechanisms of inflammation, innate and adaptive immune responses in MDS  
Shahram Kordasti (London)

19:00-20:00  Mentored Poster Walk

Sunday, March 7th, 2021

SESSION VII – Inherited dyserythropoiesis  
Chair: Achille Iolascon (Naples)

14:00-14:05  Introduction  
Achille Iolascon (Naples)

14:05-14:20  Congenital dyserythropoietic anaemia  
Roberta Russo (Naples)*

14:20-14:35  Diamond-Blackfan anaemia  
Lydie Da Costa (Paris)

14:35-14:50  Germline predisposition to MDS and bone marrow failure  
Akiko Shimamura (Boston)*

14:50-14:57  Selected brief oral communication  
TBA

14:57-15:30  Panel discussion
SESSION VIII – Gene Therapy/Editing
Chairs: John Porter (London)*, Maria-Domenica Cappellini (Milan)

15:30-15:35 Introduction
John Porter (London)*
Maria-Domenica Cappellini (Milan)

15:35-15:50 Who is the best patient candidate for gene therapy?
Vip Viprakasit (Bangkok)

15:50-16:05 Gene therapy in haemoglobinopathies vs BMT
Marina Cavazzana (Paris)*

16:05-16:20 Gene therapy in haemoglobinopathies vs gene editing
Mitchell Weiss (Memphis)*

16:20-16:35 Focus on: Immunotherapy and CAR-T in MDS:
Dream or reality?
Rafael Bejar (La Jolla)*

16:35-17:05 Panel discussion

17:05-17:15 Break

SESSION IX – Drugs and ineffective erythropoiesis
Chairs: Ali Taher (Beirut), Antonio Piga (Turin)

17:15-17:20 Introduction
Ali Taher (Beirut)
Antonio Piga (Turin)

17:20-17:35 Iron restricted erythropoiesis
Tomas Ganz (Los Angeles)*

17:35-17:50 New approaches to anaemia of MDS
Uwe Platzbecker (Leipzig)*

17:50-18:05 New approaches to the management of sickle cell disease
Lucia De Franceschi (Verona)*

18:05-18:12 Selected brief oral communication
TBA

18:12-18:42 Panel discussion

18:42-19:00 Closing remarks