



# **European Iron Club Meeting- Dublin 18–20 June (Draft Programme)**

***Scientific Innovation • Irish Heritage • Iron Through Time & Society***

## **Programme Committee**

Suzanne Cloonan, Trinity College Dublin

John Ryan, RCSI, Dublin

Heinz Zoller, Innsbruck Medical University

Hal Drakesmith, Oxford

Katarzyna Mleczko-Sanecka, The International Institute of Molecular and Cell Biology in Warsaw

Samira-Lakhal Littleton, Oxford

Lynne Faherty, Trinity College Dublin

Bill Zhang, Weill Cornell Medicine, NYC

Igor Theurl, Innsbruck Medical University and Labor Diagnostik Tirol Innsbruck

Sandro Altamura, Ruprecht-Karls University, Heidelberg

Martina Rauner, University of Dresden

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# Thursday, June 18

## Workshops, Heritage & Welcome

**09:00–14:00-Iron in Clinical Practice- from deficiency to overload**

**John Ryan**

The workshop will provide a comprehensive overview of clinically relevant areas of iron deficiency and overload; its target audience is for healthcare professionals of all disciplines and researchers. Topics covered will include Haemochromatosis, as well as iron deficiency in cardiovascular, kidney and women's health. There will be a patient representative from Ireland to give a testimony.

This workshop will take place prior to the European Iron Club Meeting. Session Modules:

### **Iron overload in clinical practice (9am- 11.30am)**

- Haemochromatosis patient testimony (Alice Kelly)
- how I manage Haemochromatosis
- Haemochromatosis nurse (Fiona Colclough, CNM2, Beaumont Hospital Dublin)
- Managing Haemochromatosis in rural Ireland (Dr Conor Mitchell, Lead GP, Community Healthcare Network Office Sligo/South Donegal, Sligo)
- Haemochromatosis in a specialist centre (Prof Bardou Jaquet, Consultant Hepatologist, Rennes, France)
- Rare causes of Haemochromatosis (Prof Elena Coradini, Consultant Physician, Modena, Italy)
- Arthropathy Expert (Prof Patrick Kiely, Consultant Rheumatologist, London)
- Interactive Cases discussion- multidisciplinary board meeting

### **Iron deficiency in clinical practice (11.45am-13.45pm)**

- Iron deficiency in renal disease (Prof Austin Stack, Professor and Foundation Chair of Medicine, University of Limerick, and Consultant Nephrologist, University Hospitals Limerick)
- Iron deficiency in women's health (Dr Michelle Lavin, Haematologist St James Hospital and Honorary Clinical Senior Lecturer RCSI)
- Iron deficiency in cardiovascular/gastrointestinal disease (Hossein Ardehali, The University of Arizona, USA)
- Nutritional iron deficiency (Dr Elaine McCarthy, Senior Lecturer in Nutrition, University College Cork)
- Interactive Cases discussion- multidisciplinary board meeting

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## 14:00–15:00 — Welcome for All Delegates

Registration · Coffee · Networking  
Informal opening

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## 15:00–16:00 — Cultural Introduction

**Speaker:** *Eibhlin Colgan*, Guinness Archivist, Guinness Storehouse, Dublin

**Talk:** *“Guinness Is Good for You: Iron, Advertising & Public Health in 1920s–30s Ireland”*

A lively narrative linking Irish history, iron myths, and the intersection of science and public imagination.

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## 16:00–17:00 — Opening Keynote Lecture

**Speaker:** *Prof. Dan Bradley*, Trinity College Dublin

**Talk:** *“Iron in our Bloodline: Ancestral Hemochromatosis and the Iron Age Genome”*

A compelling scientific keynote that connects ancient population genomics with modern iron phenotypes

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## 17:00–18:00 Lightning Session: Iron at the Crossroads of Heritage & Biology

- Archaeological biomarkers of iron metabolism
- Historical epidemiology of iron intake
- Evolutionary pressures on iron traits

### 17:10-17:20: Speaker(s) 1: Patient Experience

Margaret Mullet, Irish Hemochromatosis Association **IHA**

Patient Representative

**Talk Title:** *“The Irish Haemochromatosis Experience: Stories, Stigma & Screening”*

**17:20-17:35: Speaker 2: Dr Edmund Gilbert**, Royal College of Surgeons, Ireland

**Talk Title:** *“Mapping the Celtic Iron Genome: Haemochromatosis Risk Through Irish Ancestry”*

**17:35-17:55: Speaker 3: Prof Valerie Byrnes**, University Hospital Galway,

**Talk Title:** *“Coeliac disease and hemochromatosis—at the crossroads of Iron deficiency and iron overload in Ireland”*

**17.55-18.10 Speaker 4: Prof Elaine Mc Carthy,** University College Cork

**Talk Title:** *“Maternal and Infant Iron Nutrition in Ireland: From Pregnancy Screening to Neurodevelopmental Outcomes”*

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## **18:10 — Welcome Reception**

Venue: **Business School Lobby**

- Drinks, canapés, entertainment -Harpist
- Live Irish musicians or student ensemble

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# Friday, June 19

## Full Scientific Day + Bloomsday Event

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**08:30–17:00 — Scientific Symposia (Full Day)**

### **DAY 1 — THE HOST AS AN IRON LANDSCAPE**

**08:15–08:30 — Welcome & Opening Remarks**

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#### **PLENARY BLOCK 1 — Iron Immunometabolism: Where Infection Meets Metabolism**

**08:30–09:10 — *Plenary Invited Speaker 1***

**Speaker name: Prof. Dave Finlay, Trinity College Dublin**

**Title:** Metabolic Wiring of Immunity: How Nutrient Availability Shapes Immune Cell Fate and Function “Iron, Immunometabolism & the Inflamed Tissue Niche”

**09:10–10:20 — Selected Oral Session 1**

**9:10-9:25 Short talk 1:** Tissues Guide Dependence of Regulatory T cells on the Transferrin Receptor, Dr Kelsey Voss, University Of Virginia, USA

**9:25-9:40 Short talk 2:** Iron Depletion Leads to Decreased Anabolism through Epigenetic Changes and an Increase in the TCA Cycle Independent of HIF Pathway, Prof. Hossein Ardehali, The University of Arizona, USA

**9:40-09:55 Short talk 3:** Iron Deprivation Counteracts Systemic Autoimmune Inflammation, Ms Dana Costigan, University Of Oxford, UK

**9:55-10:10 Short talk 4:** Tfr2 limits macrophage inflammatory metabolism by maintaining NAD<sup>+</sup> homeostasis in intestinal inflammation? Dr Maria G. Ledesma-Colunga, Dresden University Of Technology, Germany

*10:10-10:20 -closing remarks-discussion*

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## Coffee Break (10:20–10:50)

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### PLENARY BLOCK 2 — Iron Homeostasis in Host Defence, Pathogen Restriction, and Cellular Adaptation

#### 10:50–11:30 — *Plenary Invited Speaker 2*

**Prof. Randi Marie Mohus** Senior consultant Anesthesiology and Intensive care, St. Olavs hospital, Researcher, Gemini Centre Sepsis Research, NTNU, Trondheim, Norway,

**Title:** “Iron Status and Infection Susceptibility: Epidemiological Insights from Population-Based Studies”

#### 11:30–12:30 — **Selected Oral Session 2**

**11:30-11:45 Short talk 5:** Cellular Iron Deficiency Impairs Mast Cell Development and Degranulation, Ms Hannah Murray, University Of Oxford, UK

**11:45-12:00 Short talk 6:** Iron deficiency drives metabolic adaptation of red pulp macrophages via ferroportin-SYK signaling and BCAA catabolism to enhance erythrophagocytosis, Prof Katarzyna, Mleczko-Sanecka, International Institute Of Molecular And Cell Biology In Warsaw (IIMCB), Poland

**12:00-12:15 Short talk 7:** The Battle for Iron between Macrophages and Crohn’s Disease Associated *Escherichia coli*, Mr Hosni Nedjar, Collège de France, France

**12:15-12:30 Short talk 8:** Mitochondrial Iron Piracy: Fuelling Macrophages to Fail, Dr. Lynne Faherty, Trinity College Dublin, Ireland

*12:30-12:45 -closing remarks-discussion*

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## Lunch & Posters (12:45–14:00)

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### PLENARY BLOCK 3 — New Links in Cellular and Systemic Iron Regulation

#### 14:00–14:30 — *Plenary Invited Speaker 3*

**Speaker: Caroline Philpott, NIH, USA (selected from abstracts)**

**Title:** Catastrophic Iron Deficient Crypt Cell Death in Mice Lacking Poly C Binding Proteins 1 and 2 in Intestinal Epithelium

#### 14:30–15:30 — **Selected Oral Session 3**

**14:30-14:45 Short talk 9:** FKBP12 Bridges Lipid and Iron Metabolism through BMP SMAD Pathway Inhibition in MASLD, Dr Mariateresa Pettinato, Vita-Salute San Raffaele University, Italy

**14:45-15:00 Short talk 10:** Functional Inactivation of Duodenal Ferroportin by Hepcidin Drives Iron Dependent Degradation of DMT1 in Lysosomes, Prof Kostas Pantopoulos, Lady Davis, Institute for Medical Research and McGill University, Canada

**15:00-15:15 Short talk 11:** Distinct Iron Metabolism Regulation during Cachexia Progression in Murine Models of Intestinal and Pancreatic Cancer, Dr Frederic Debre, University Rennes, France,

**15:15-15:30 Short talk 12:** Mitochondrial iron restriction and ferritin accumulation drive GPRC5A deficiency-mediated ferroptosis resistance in lung adenocarcinoma, Dr Ziling Huang, Department of Pathology, Fudan University Shanghai Cancer Center, China

*15:30-15:40 -closing remarks-discussion*

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**Coffee Break (15:40–16:10)**

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#### **PLENARY BLOCK 4 — Emerging Technologies: Mapping Iron in Space & Time**

**16:10-16:30: Dr Nicole Stoffel; ETH Zurich**

**Title:** *Assessing Human Iron Kinetics Using Stable Iron Isotopic Techniques*

**16:30-16:50- Dr Hal Drakesmith, Oxford University**

**Title:** Single-Cell Iron Quantification: Resolving Iron Homeostasis and Function Across Immune Cell Populations

**16:50-17:05: Oral Short 13:** Integrated Spatial Isotope Imaging and Transcriptomics Identify Monocyte Derived Macrophages as Drivers of Iron Clearance and Inflammatory Resolution after Hemorrhagic Stroke, Dr Raphael Buzzi, University Of Zurich

**17:05-17:20: Oral Short 14:** Next Generation Hydroxypyridinone–Cy5 Mitochondrial Probe for Non Invasive, Dynamic In Vivo Measurement of Labile Iron, Prof Charareh Pourzand, University Of Bath, UK.

*17:20-17:30 -closing remarks-discussion*

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#### **17:30 — Bloomsday Walking Tour (2h 45m)**

A special literary- experience: Dublin, Joyce, and the city's history.  
Ends near pubs/restaurants for informal evening socialising.

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# Saturday, June 20

## Final Scientific Day + Gala Dinner

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### 07:00 — Rusty Run (5 km, Dublin city route)

Social, fun run open to all fitness levels.

Add:

- Starting point
  - Route map
  - Whether to give T-shirts or medals
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### 08:30–09:15 -EIC Business Meeting

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### 09:15–17:00 — Scientific Symposia (Full Day)

#### DAY 2- SYSTEMS-LEVEL IRON BIOLOGY & TRANSLATION

### PLENARY BLOCK 5 — The Bone–Blood Axis: From Basic Mechanisms to Clinical Disorders of Blood Formation

#### 09:15–09:45 — *Plenary Invited Speaker 4*

**Stefano Rivella- Children’s Hospital of Philadelphia (CHOP) Research Institute, USA**

**Title:** Erythroid Control of Systemic Iron: Mechanisms Linking Bone Marrow Niches to Effective and Ineffective Erythropoiesis

#### 09:45–11:05 — **Selected Oral Session 5- Iron in Haematopoiesis & Immune Regulation**

**9:45-10:00 Short talk 15:** Deciphering the Pathophysiology of Congenital Dyserythropoietic Anaemia Type IIIb: Clinical and Molecular Characterisation, Prof Mayka Sanchez, Universitat Internacional de Catalunya, Spain

**10:00-10:15 Short talk 16:** Fibroblast Growth Factor 23 Disruption in Sinusoidal Endothelial Cells Reveals Hematopoietic Phenotypes in Mice, Prof Karin Finberg, Yale School Of Medicine, USA.

**10:15-10:30 Short talk 17:** Loss of hematopoietic TFR2 enhances erythropoiesis in an erythroid autonomous manner by rewiring cell metabolism. Mr Emanuele Tanzi, San Raffaele University, Italy

**10:30-10:45 Short talk 18:** Iron Deficiency Anaemia Impairs Bone Health in Mice, Dr Martina Saretto, Medical University Innsbruck, Austria

**10:45-11:00 Short Talk 19:** Monoferric Transferrin Ameliorates Ineffective Erythropoiesis in MDS Mice, Prof Yelena Ginzberg, Icahn School Of Medicine At Mount Sinai, USA

*11:00-11:05 closing remarks-discussion*

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**Coffee Break (11:05–11:30)**

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## **PLENARY BLOCK 6 — Organ-Level Iron Dysregulation: Mechanisms of Chronic Disease**

**11:30–12:10 -Plenary Invited Speaker 5**

**Samira Lakhali-Littleton: University of Oxford**

**Title:** Organ-Level Iron Homeostasis: Mechanistic Links to Chronic Cardiovascular and Metabolic Disease

**12:10–13:20 — Selected Oral Session 6**

**12.10-12:25 Short talk 20:** Iron Deficiency Anaemia Alters Myocardial Energy Metabolism: Evidence from Experimental Models and Human Imaging. Ms Elke, Pertler, Medical University of Innsbruck, Austria

**12:25-12:40 Short talk 21:** Myeloid Ferritin Heavy Chain Regulates Iron Mobilization and Drives Anaemia in Chronic Kidney Disease, Ms Chantalle Campbell, Weill Cornell Medicine, USA

**12:40-12:55 Short talk 22:** Heparin in Heart Failure: Pathophysiological Determinants and Prognostic Implications, Dr Nicolò De Biase, University of Pisa, Italy.

**12:55-1:10 Short talk 23:** Hemolysis Induced Inflammation Aggravates Sickle Hepatopathy by Exacerbating Hepatocyte Fetal Reprogramming and Biliary Injury, Prof. Francesca Vinchi, Emory University School Of Medicine, USA

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**Lunch & Posters (13:15–14:30)**

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**PLENARY BLOCK 6 — Emerging Approaches to Modernising Iron Medicine**

**14:30–15:10 Plenary Invited Speaker 6**

**Nicki Panoskaltis, Trinity College Dublin**

**Title:** 3D Hematopoietic Organomics: Capturing Metabolic Shifts to Advance Future Iron Medicine

**15:10-15:25 Short talk 24:** Therapeutic potential of sevuparin in chronic kidney disease anaemia: synergistic effects with EPO and molecular insights into renal protection, Dr Michela Asperti eCampus University, Novedrate (Como), Italy,

**15:25-15:40 Short talk 25:** Bioavailability of Newly Developed Plant Derived Heme Iron Compounds in Iron Deficient Women. Ms Salome Häcki, ETH Zurich, Switzerland

**15:40-15:55 Short talk 26:** Siderophore-Based Probes for Infection Imaging Exploiting a Trojan Horse Strategy in Pathogen Iron Metabolism. Dr Klaudia Szczerba, University of Wroclaw, Poland

**15:55-16:10 Short talk 27:** Ferric Carboxymaltose Modulates Metabolic and Inflammatory Pathways in Heart Failure (AFFIRM AHF), Dr Niels Grote Beverborg University Medical Center Groningen, The Netherlands

*16:10-16:20 -closing remarks-discussion*

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**16:20-16:45 CLOSING REMARKS**

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**18:30/19:00 — Reception Drink with Gala Dinner**

Venue: Trinity College Dublin Dining Hall

- Reception drink
- Three-course dinner
- Early-career researcher awards

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**CONFERENCE CLOSE**