



8th Congress of the International Biolron Society

EMBL CONFERENCE



We have moved our website to embl.org/events. The content below is no longer being updated.

EMBL Courses and Conferences during the Coronavirus pandemic

With the onsite programme paused, many of our events are now being offered in virtual formats.

Registration is open as usual for many events, with back-up plans in place to move further courses and conferences online as necessary. Registration fees for any events affected by the COVID-19 disruption are fully refundable.

More information for participants of events at EMBL Heidelberg can be found [here](#).

Programme

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Day 1 - Sunday 5 May 2019

(Educational Day, Keynote Lecture and Welcome Reception)

| Time | Speaker | Location |
|------|---|----------|
| | Introductory Course: Iron Essentials for Clinicians and Scientists <i>Coordinated by Jodie Babitt, Hal Drakesmith and Ioav Cabantchik</i> | |

| Time | Speaker | Location |
|---------------|--|-----------------------|
| 08:00 - 09:00 | Arrival and Registration for Educational Day with light refreshments | ATC Registration Desk |
| 09:00 - 18:00 | Introductory Course: Iron Essentials for Clinicians and Scientists <i>Coordinated by Jodie Babitt, Ioav Cabantchik and Hal Drakesmith</i> | ATC Auditorium |
| 09:00 - 09:05 | Introductory Remarks Ioav Cabantchik, President IBIS - Hebrew University of Jerusalem, Israel | ATC Auditorium |
| 09:05 - 12:30 | Session 1: Basic Properties and Methodologies <i>Chairs: Greg Anderson and Robert Fleming</i> | ATC Auditorium |
| 09:05 - 09:45 | Biolron: Origin, chemical properties and evolution Kostas Pantopoulos - McGill University, Canada | |
| 09:45 - 10:30 | Iron transport proteins: Gateways of cellular and systemic iron homeostasis Mitchell Knutson - University of Florida, United States of America | |
| 10:30 - 11:00 | Coffee Break | ATC Auditorium Foyer |
| 11:00 - 12:30 | Session 1: Basic Properties and Methodologies (continued) <i>Chairs: Greg Anderson and Robert Fleming</i> | ATC Auditorium |
| 11:00 - 11:45 | Mechanisms controlling cellular iron homeostasis in mammals Rick Eisenstein - University of Wisconsin-Madison, United States of America | |
| 11:45 - 12:30 | Systemic iron homeostasis Jodie Babitt - Massachusetts General Hospital, Harvard Medical School, United States of America | |
| 12:30 - 13:30 | Lunch | EMBL Canteen |
| 13:30 - 15:30 | Session 2: Genetic and Acquired Iron Disorders <i>Chairs: Clara Camaschella and Günter Weiss</i> | ATC Auditorium |

| Time | Speaker | Location |
|---------------|---|--------------------------|
| 13:30 - 14:00 | Genetic diseases causing iron deficiency and iron overload: Two faces of the same coin Laura Silvestri - San Raffaele Scientific Institute, Italy | |
| 14:00 - 14:30 | Erythropoiesis and iron metabolism: Crosstalk, implications, and therapeutic options in iron loading anemias Yelena Ginzburg - Icahn School of Medicine at Mount Sinai, United States of America | |
| 14:30 - 15:30 | Iron in cancer, infection, kidney and liver diseases: Innocent bystander or therapeutic target? Igor Theurl and Heinz Zoller - Medical University of Innsbruck, Austria | |
| 15:30 - 16:00 | Coffee Break | ATC Auditorium Foyer |
| 16:00 - 17:30 | Session 3: Global Issues Chairs: Domenico Girelli and Dorine Swinkels | ATC Auditorium |
| 16:00 - 16:45 | The pathophysiology and diagnosis of iron deficiency and anaemia in populations and patients Sant-Rayn Pasricha - Walter and Eliza Hall Institute, Australia | |
| 16:45 - 17:30 | Nutritional (dietary) and "functional" deficiencies in the first and third world Michael Zimmermann - ETH Zürich, Switzerland | |
| 17:30 - 18:00 | Session 4: The Future of Biolron Chair: Hal Drakesmith | ATC Auditorium |
| 17:30 - 18:00 | Open questions in basic and clinical iron research "It is hard to make predictions, especially about the future." -- Yogi Berra Tomas Ganz and Elizabeta Nemeth - University of California, Los Angeles, United States of America | |
| 17:30 - 18:30 | Arrival and Registration for Keynote Lecture and Welcome Reception with light refreshment | ATC Registration Desk |

| Time | Speaker | Location |
|---------------|---|-------------------------|
| 18:30 - 19:30 | Keynote Lecture: Analyzing microbiomes in us and on our planet Peer Bork - EMBL Heidelberg, Germany | ATC Auditorium |
| 19:30 - 21:30 | Welcome Reception with nibbles and refreshments | ATC Auditorium Foyer |

Day 2 - Monday 6 May 2019

| Time | Speaker | Location |
|---------------|--|--|
| 08:00 - 08:45 | Arrival and Registration with light refreshments | ATC Registration Desk |
| 08:45 - 09:00 | Welcome Remarks by organisers Ioav Cabantchik - Hebrew University of Jerusalem, Israel Matthias Hentze - EMBL Heidelberg, Germany Martina Muckenthaler - University of Heidelberg, Germany | ATC Auditorium (streamed to ATC Courtyard Room A & B) |
| 09:00 - 12:30 | Plenary 1: Cell Biology of Iron Metabolism Chairs: Bruno Galy and Matthias Hentze | ATC Auditorium (streamed to ATC Courtyard Room A & B) |
| 09:00 - 09:30 | Mechanisms of ferroptosis Marcus Conrad - Helmholtz Zentrum München, Germany | |
| 09:30 - 09:45 | Mechanisms, pathways and regulation of mammalian ferritin secretion Lior Spektor - Technion - Israel Institute of Technology, Israel | |
| 09:45 - 10:00 | Novel mechanistic insights into the regulation of BMP-SMAD pathway and hepcidin expression by FKBP12 Alessandro Dulja - San Raffaele Scientific Institute, Italy | |
| 10:00 - 10:15 | A novel role for peroxisomal proteins in iron homeostasis Nathan Subramaniam - Queensland University of Technology, Australia | |

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| 10:15 - 10:30 | A systems genetics approach to identify genes and pathways involved in liver iron overload and pathology Brie Fuqua - University of California, Los Angeles, United States of America | |
| 10:30 - 11:00 | Coffee Break | ATC Foyer |
| 11:00 - 12:30 | <i>Plenary 1: Cell Biology of Iron Metabolism (continued)</i> <i>Chairs: Mitchell Knutson and Marie-Paule Roth</i> | ATC Auditorium (streamed to ATC Courtyard Room A & B) |
| 11:00 - 11:30 | Transferrin receptor 2 controls bone mass and pathological bone formation via BMP and Wnt signaling Martina Rauner - TU Dresden Medical Center, Germany | |
| 11:30 - 12:00 | Regulation of transferrin receptor via S-acylation Aurelio Teleman - German Cancer Research Center, Germany | |
| 12:00 - 12:15 | Ncoa4-mediated ferritinophagy maintains murine erythropoiesis via cell autonomous and non-autonomous mechanisms Joseph Mancias - Dana-Farber Cancer Institute, United States of America | |
| 12:15 - 12:30 | PCBP1-mediated iron binding and delivery in the cytosol: mechanisms and impacts Caroline Philpott - National Institutes of Health, United States of America | |
| 12:30 - 14:00 | Lunch | ATC Auditorium Foyer |
| 14:00 - 15:30 | <i>Concurrent Session 1: Iron Deficiency in Cancer Patients: A Clinical Perspective</i> <i>Chairs: Max Gassmann and Andrea Steinbicker</i> | ATC Auditorium |
| 14:00 - 14:20 | Iron deficiency in cancer patients: An emerging issue but difficult to define Domenico Girelli - University of Verona, Italy | |
| 14:20 - 14:40 | Management of anemia and iron deficiency in cancer patients: What guidelines say? Manuel Muñoz - University of Málaga, Spain | |

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| 14:40 - 15:00 | Perioperative anemia and iron deficiency in oncological surgery Donat Spahn - University Hospital Zürich, Switzerland | |
| 15:00 - 15:30 | Round Table Discussion | ATC Auditorium |
| 14:00 - 15:30 | <i>Concurrent Session 2: Erythropoiesis and Iron</i> <i>Chairs: Robert Fleming and Antonella Nai</i> | Large Operon |
| 14:00 - 14:30 | Gene therapy to cure hemoglobinopathies Marina Cavazzana - Hôpital Necker - Enfants Malades, France | |
| 14:30 - 14:45 | Combining Tfr2-haploinsufficiency with TMPRSS6-antisense oligonucleotides strongly ameliorates the hematological phenotype of thalassemic mice Antonella Nai - San Raffaele Scientific Institute, Italy | |
| 14:45 - 15:00 | The regulation of ferroportin and iron regulatory protein 2 on erythropoiesis Deliang Zhang - National Institutes of Health, United States of America | |
| 15:00 - 15:15 | The role of glutathione peroxidase 4 and vitamin E in reticulocyte maturation and iron homeostasis Georg W. Bornkamm - Helmholtz Zentrum München, Germany | |
| 15:15 - 15:30 | AMPK regulates the expression of the Fe-S cluster assembly enzyme (ISCU) and ALAS2, modulating cellular iron metabolism and increasing hemoglobin synthesis Ping La - Children's Hospital of Philadelphia, United States of America | |
| 14:00 - 15:30 | <i>Concurrent Session 3: Heme Physiology and Pathophysiology</i> <i>Chairs: Iqbal Hamza and Emanuela Tolosano</i> | ATC Courtyard Room A & B |
| 14:00 - 14:15 | The safe coordinated trafficking of heme and iron after heme-hemopexin endocytosis requires copper for cell homeostasis Ann Smith - University of Missouri, United States of America | |
| 14:15 - 14:30 | Heme cytotoxicity in the brain: Microglia polarization and neuronal damage Illyane Lima - NOVA University Lisbon, Portugal | |

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| 14:30 - 14:45 | <p>Iron deposition associated to vascular damage and hemolysis causes senescence and fibrosis</p> <p>Mate Maus - IRB Barcelona, Barcelona Institute of Science and Technology, Spain</p> | |
| 14:45 - 15:00 | <p>Modulating heme biosynthesis alters Toxoplasma sensitivity to antimalarials</p> <p>Clare Harding - University of Glasgow, United Kingdom</p> | |
| 15:00 - 15:15 | <p>Metabolic adaptation in colorectal cancer: Heme export is required for the modulation of the tricarboxylic acid cycle</p> <p>Veronica Fiorito - University of Turin, Italy</p> | |
| 15:15 - 15:30 | <p>Heme synthesis/Heme export axis as a novel regulator of cellular oxidative metabolism</p> <p>Emanuela Tolosano - University of Turin, Italy</p> | |
| 15:30 - 16:00 | Coffee Break | ATC Auditorium Foyer |
| 16:00 - 17:30 | <p><i>Concurrent Session 4: Infection and Inflammation</i></p> <p><i>Chairs: Caroline Philpott and Günter Weiss</i></p> | ATC Auditorium |
| 16:00 - 16:15 | <p>Non-transferrin-bound iron in hematopoietic stem cell transplanted patients serves as iron source for Aspergillus fumigatus outgrowth</p> <p>Verena Petzer - Medical University of Innsbruck, Austria</p> | |
| 16:15 - 16:30 | <p>Reduction in erythrocyte life span as a key component of mycobacteria induced anemia</p> <p>Maria Salomé Gomes - University of Porto, Portugal</p> | |
| 16:30 - 16:45 | <p>The role of TNFα and IFNγ in anemia of inflammation, immunity and stress erythropoiesis</p> <p>Stefano Rivella - Children's Hospital of Philadelphia, United States of America</p> | |
| 16:45 - 17:00 | <p>Hepcidin-mediated hypoferremic response to acute inflammation requires a threshold of Bmp6/Hjv/Smad signaling</p> <p>Edouard Charlebois - McGill University, Canada</p> | |

- 17:00 - 17:15 **Hemolysis and intracellular heme confer protection against anti-CD40-triggered macrophage activation syndrome and vaso-occlusive inflammatory liver disease**
Giada Ingoglia - University of Zürich, Switzerland
- 17:15 - 17:30 **Anemia in infants at age 10-24 weeks predicts reduced long-term efficacy of diphtheria vaccine: a 2-year prospective observational study in rural Kenya**
Nicole Stoffel - ETH Zürich, Switzerland
- 16:00 - 17:30 ***Concurrent Session 5: Liver Iron-Sensing and Control of the Hepcidin/Ferroportin Regulatory System*** Large Operon
Chairs: Laura Silvestri and Jodie Babitt
- 16:00 - 16:30 **New modes of hepcidin regulation**
Hal Drakesmith - University of Oxford, United Kingdom
- 16:30 - 16:45 **Endothelial Bmp2 knockout exacerbates hemochromatosis in Hfe knockout mice but not Bmp6 knockout mice**
Xia Xiao - Massachusetts General Hospital, Harvard Medical School, United States of America
- 16:45 - 17:00 **The hemochromatosis proteins are dispensable for acute BMP2-mediated hepcidin upregulation in mice**
Alessia Pagani - San Raffaele Scientific Institute, Italy
- 17:00 - 17:15 **MyD88 regulates the expression of SMAD4 and the iron regulatory hormone hepcidin**
Macha Samba Mondonga - University of Montreal, Canada
- 17:15 - 17:30 **Spatial zonation of hepcidin in the liver is patterned by testosterone**
Hélène Coppin - INSERM, France
- 16:00 - 17:30 ***Concurrent Session 6: Iron and Neurodegeneration*** ATC Courtyard Room A & B
Chairs: Ashley Bush and Raffaella Gozzelino
- 16:00 - 16:30 **Is ferroptosis, a newly characterized iron-dependent form of cell death, a clue for neuroprotection in Parkinson's disease?**
David Devos - University of Lille, France

- Evidence for communication between systemic iron status and cerebrospinal fluid: Clinical implications for therapeutic strategy**
16:30 - 16:45
James Connor - Pennsylvania State University, United States of America
- Mitochondrial ferritin attenuates ferroptosis and ER-stress induced apoptosis in an experimental model of ischemic stroke**
16:45 - 17:00
Peina Wang - Hebei Normal University, China
- How and why does iron storage fail with age?**
17:00 - 17:15
Gawain McColl - University of Melbourne, Australia
- Changes in gut microbiota: An early event in Parkinson's disease**
17:15 - 17:30
Raffaella Gozzelino - NOVA University of Lisbon, Portugal
- Concurrent Session 7: Iron Deficiency Disorders and Their Treatment***
16:00 - 17:30
Chairs: Diego Moretti and Heinz Zoller Small Operon
- The effect of genetic variation in TMPRSS6 (SNP rs855791) on iron metabolism and oral iron absorption: a stable iron isotope study in Taiwanese women**
16:00 - 16:15
Sung-Nan Pei - Chia-Yi Chang Gung Memorial Hospital, Taiwan
- Tmprss6^{-/-} mice show plasma FGF23 elevation that is influenced by Fgf23 gene dosage**
16:15 - 16:30
Xiuqi Li - Yale School of Medicine, United States of America
- Generation and development of KY1070, a fully human anti-BMP6 antibody for treatment of Anemia of Chronic Disease**
16:30 - 16:45
Volker Germaschewski - Kymab, United Kingdom
- Iron deficiency and a genetic risk score derived from GWAS are associated with Restless Legs Syndrome and its severity in 20,000 blood donors**
16:45 - 17:00
David J. Roberts - University of Oxford, United Kingdom

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| 17:00 - 17:15 | Novel formulations to fortify rice with iron: Evidence and public health potential Diego Moretti - Swiss Distance University of Applied Sciences, Switzerland | |
| 17:15 - 17:30 | Fecal microbiota as a biomarker to predict the tissue iron accumulation in intestine epithelial cells and liver Liwei Xie - Guangdong Institute of Microbiology, China | |
| 17:30 - 18:00 | Meet the Master Interview with Maria de Sousa with refreshments Presenter: Ioav Cabantchik | ATC Auditorium Foyer Stage |
| 18:00 - 19:30 | Dinner | EMBL Canteen |
| 19:30 - 20:30 | Open Debate: Controversies in Bioiron Topic: Intravenous Iron Supplementation in Chronic Cardiac Failure Moderator: Tomas Ganz In Favor: Iain Macdougall - King's College Hospital, United Kingdom Against: Hossein Ardehali - Northwestern University, United States of America | ATC Courtyard A & B |
| 19:30 - 22:00 | Poster Session I (odd numbers) with drinks and snacks | ATC Helix A & B |

Day 3 - Tuesday 7 May 2019

| Time | Speaker | Location |
|---------------|---|-----------------------------|
| 07:45 - 08:45 | Meet the Expert 1: Gene Therapy for Iron Disorders Stefano Rivella - University of Pennsylvania, United States of America <i>Concurrent sessions. Students / trainees only - Space is limited, pre-registration essential.</i> | ATC Helix Seminar Room A |
| 07:45 - 08:45 | Meet the Expert 2: Tracing the Intracellular Dynamics of Iron and Heme Iqbal Hamza - University of Maryland, United States of America <i>Concurrent sessions. Students / trainees only - Space is limited, pre-registration essential.</i> | ATC Helix Seminar Room B |

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| 09:00 - 12:30 | Plenary 2: Disorders of Iron Metabolism Chairs: Clara Camaschella and Antonello Pietrangelo | ATC Auditorium (streamed to ATC Courtyard Room A & B) |
| 09:00 - 09:30 | The battle for iron between pathogens, the host, and the microbiota in the inflamed gut Manuela Raffatellu - University of California, San Diego, United States of America | |
| 09:30 - 10:00 | Ferritinophagy and cell cycle control Francesca Carlomagno - University of Naples Federico II, Italy | |
| 10:00 - 10:15 | The natural history of ferroportin Disease – first results of the international, multicenter non-HFE registry Benedikt Schaefer - Medical University of Innsbruck, Austria | |
| 10:15 - 10:30 | New insights into the molecular mechanisms underlying the pro-atherosclerotic effect of non-transferrin-bound iron Francesca Vinchi - New York Blood Center, United States of America | |
| 10:30 - 11:00 | Coffee Break | ATC Auditorium Foyer |
| 11:00 - 12:30 | Plenary 2: Disorders of Iron Metabolism (continued) Chairs: Tomas Ganz and Stefano Rivella | ATC Auditorium (streamed to ATC Courtyard Room A & B) |
| 11:00 - 11:30 | Treating leukemia with oxidative ferrotherapy Monica Guzman - Cornell University, United States of America | |
| 11:30 - 12:00 | Iron, ferroptosis, aging and Alzheimer's disease Ashley Bush - The Florey Institute of Neuroscience and Mental Health, Australia | |
| 12:00 - 12:15 | Differential effects of IRP1 deficiency versus HIF-2a IRE deletion on postnatal erythropoiesis in mice Rick Eisenstein - University of Wisconsin-Madison, United States of America | |

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| 12:15 - 12:30 | Absence of iron-responsive element-binding protein 2 causes a novel neurodegenerative syndrome Nunziata Maio - National Institutes of Health, United States of America | |
| 12:30 | Packed Lunch | ATC Auditorium Foyer |
| From 12:30 | Free Afternoon | |
| 19:00 - 20:30 | Drinks Reception with Live Music Blue Note Jazz Trio <i>Ticketed event. Heidelberg Castle</i> | Heidelberg Castle |

Day 4 - Wednesday 8 May 2019

| Time | Speaker | Location |
|---------------|--|--|
| 07:45 - 08:45 | Meet the Expert 3: Translating Biologic Discoveries to Clinical Practice Tomas Ganz - University of California, Los Angeles, United States of America Elizabeta Nemeth - University of California, Los Angeles, United States of America <i>Concurrent sessions. Students / trainees only - Space is limited, pre-registration essential</i> | ATC Helix Seminar Room A |
| 07:45 - 08:45 | Meet the Expert 4: Biophysical Approaches to Iron Speciation in Cells and Organ Development Robert Hider - King's College London, United Kingdom Paul Lindahl - Texas A&M University, United States of America <i>Concurrent sessions. Students / trainees only - Space is limited, pre-registration essential.</i> | ATC Helix Seminar Room B |
| 09:00 - 12:30 | Plenary 3: Biology of Iron-Sulfur Proteins Chairs: Roland Lill* and Ioav Cabantchik (* COST Action 15133 "The Biogenesis of Iron-sulfur Proteins: from Cellular Biology to Molecular Aspects (FeSBioNet)) | ATC Auditorium (streamed to ATC Courtyard Room A & B) |
| 09:00 - 09:30 | Iron homeostasis regulates facultative heterochromatin assembly in adaptive genome control Shiv Grewal - National Institutes of Health, United States of America | |

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| 09:30 - 10:00 | Irp2 regulates insulin production through iron-mediated Cdkal1-catalyzed tRNA modification Elisabeth Leibold - University of Utah, United States of America | |
| 10:00 - 10:30 | Friedreich ataxia: role of frataxin and pathophysiological consequences Hélène Puccio* - INSERM, France | |
| 10:30 - 11:00 | Coffee Break | ATC Auditorium Foyer |
| 11:00 - 12:30 | Plenary 3: Biology of Iron-Sulfur Proteins (continued) Chairs: Tracey Rouault and Caroline Enns (* COST Action 15133 "The Biogenesis of Iron-sulfur Proteins: from Cellular Biology to Molecular Aspects (FeSBioNet)) | ATC Auditorium (streamed to ATC Courtyard Room A & B) |
| 11:00 - 11:30 | Cytosolic and nuclear iron-sulfur protein assembly Oliver Stehling* - Philipps University of Marburg, Germany | |
| 11:30 - 12:00 | The lability of the NEET proteins' iron sulphur cluster: Biomedical implication Rachel Nechushtai* - Hebrew University of Jerusalem, Israel | |
| 12:00 - 12:15 | Fe-S cluster biogenesis in DNA repair proteins: Structural studies of the CIA machinery Susanne Kassube - Friedrich Miescher Institute for Biomedical Research, Switzerland | |
| 12:15 - 12:30 | Dimeric ferrochelatase bridges ABCB7 and ABCB10 homodimers in an architecturally defined molecular complex required for heme biosynthesis Nunziata Maio - National Institutes of Health, United States of America | |
| 12:30 - 14:15 | Lunch | ATC Auditorium Foyer |
| 14:15 - 15:15 | Concurrent Session 8: Cardiovascular Disease Chairs: Hossein Ardehali and Samira Lakhal-Littleton | ATC Auditorium |

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| 14:15 - 14:30 | <p>Unexpected differences in cardiac iron metabolism and survival in Hpcidin-ko and FpnC326S mice</p> <p>Sandro Altamura - Heidelberg University, Germany</p> | |
| 14:30 - 14:45 | <p>Role of mTOR-TTP Pathway in cardiac response to iron deficiency</p> <p>Hossein Ardehali - Northwestern University, United States of America</p> | |
| 14:45 - 15:00 | <p>Smooth muscle cell iron retention contributes to the pathology of abdominal aortic aneurysm</p> <p>Paul Loick - University of Oxford, United Kingdom</p> | |
| 15:00 - 15:15 | <p>Interfering with endothelial heme metabolism to control the angiogenic process</p> <p>Sara Petrillo - University of Turin, Italy</p> | |
| 14:15 - 15:15 | <p><i>Concurrent Session 9: Macrophage and Iron Metabolism</i></p> <p><i>Chairs: Igor Theurl and Francesca Vinchi</i></p> | Large Operon |
| 14:15 - 14:30 | <p>Systemic dysfunction in Lysinuric Protein Intolerance drives immune complications</p> <p>Susanna Bodoy - IRB Barcelona, Spain</p> | |
| 14:30 - 14:45 | <p>Myeloid heavy chain ferritin mitigates ischemic acute kidney injury</p> <p>Laurence Black - University of Alabama at Birmingham, United States of America</p> | |
| 14:45 - 15:00 | <p>The macrophage iron phenotype – a novel target in cancer therapy?</p> <p>Christina Mertens - Heidelberg University Hospital, Germany</p> | |
| 15:00 - 15:15 | <p>Transfusion-induced impairment of macrophage responses is partially restored by the iron chelator deferasirox</p> <p>Francesca Vinchi - New York Blood Center, United States of America</p> | |
| 14:15 - 15:15 | <p><i>Concurrent Session 10: Iron Biology and Disease</i></p> <p><i>Chairs: Sonia Levi and Mayka Sanchez</i></p> | ATC Courtyard Room A & B |

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| 14:15 - 14:30 | Induction of erythroferrone in healthy humans by microdose recombinant erythropoietin or high altitude exposure Elena Gammella - University of Milan, Italy | |
| 14:30 - 14:45 | Iron Regulatory Protein 1 requires glycogen branching enzyme and mitoNEET to remain functional as an iron-regulatory holo-form Kirst King-Jones - University of Alberta, Canada | |
| 14:45 - 15:00 | TGFβ regulates BMP2 in liver sinusoidal endothelial cells: A possible link between chronic liver disease and iron overload Silvia Colucci - Heidelberg University, Germany | |
| 15:00 - 15:15 | PIGA germline mutations may cause a novel subtype of hereditary hemochromatosis Lena Muckenthaler - Heidelberg University, Germany | |
| 15:15 - 16:00 | Coffee Break | ATC Auditorium Foyer |
| 16:00 - 17:30 | <i>Concurrent Session 11: Iron Overload, Iron Chelation and Targeted Therapies</i> <i>Chairs: Robert Hider and Dorine Swinkels</i> | ATC Auditorium |
| 16:00 - 16:15 | A new orally active iron chelator: CN128 Robert Hider - King's College London, United Kingdom | |
| 16:15 - 16:30 | Applications of nanotechnology to the delivery of iron chelators Greg Anderson - QIMR Berghofer Medical Research Institute, Australia | |
| 16:30 - 16:45 | Orally-delivered ginger nanoparticle-derived lipid vectors target functional Dmt1 siRNAs to duodenal enterocytes and Mitigate Iron Loading in Hepcidin KO Mice Xiaoyu Wang - University of Florida, United States of America | |
| 16:45 - 17:00 | Gastrointestinal iron excretion and reversal of iron excess in a mouse model of inherited iron excess Thomas Bartnikas - Brown University, United States of America | |

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| 17:00 - 17:15 | <p>Novel third-generation ferrostatins protect against acute iron poisoning-induced organ injury Samya Van Coillie - VIB-UGent, Belgium</p> | |
| 17:15 - 17:30 | <p>Double knockout of ZIP14 and ZIP8 in mice reveals novel roles for ZIP8 in tissue iron accumulation in iron overload Mitchell Knutson - University of Florida, United States of America</p> | |
| 16:00 - 17:30 | <p><i>Concurrent Session 12: Cancer and Ferroptosis</i> <i>Chairs: Marcus Conrad and Monica Guzman</i></p> | Large Operon |
| 16:00 - 16:30 | <p>MYCN mediates cysteine addiction and sensitizes to ferroptosis Frank Westermann - German Cancer Research Center, Germany</p> | |
| 16:30 - 16:45 | <p>Iron induces cell death and synergizes with anti-androgen therapy in prostate cancer pre-clinical models Alessandro Campanella - San Raffaele Scientific Institute, Italy</p> | |
| 16:45 - 17:00 | <p>Amyloid precursor protein (APP) supports tumorigenesis by counteracting iron-mediated oxidative stress and p38MAPK-dependent DNA damage Vivek Venkataramani - University Medical Center Göttingen, Germany</p> | |
| 17:00 - 17:15 | <p>NCOA4 expression regulates ferritin accumulation and has differential effects on RSL3- and erastin-induced ferroptosis in HeLa cells Magdalena Gryzik - University of Brescia, Italy</p> | |
| 17:15 - 17:30 | <p>Pro-tumor characteristics of macrophage-derived lipocalin-2 (Lcn-2) are determined by its iron-load Michaela Jung - Goethe-University Frankfurt, Germany</p> | |
| 16:00 - 17:30 | <p><i>Concurrent Session 13: Tissue-Specific Regulation of Iron Metabolism</i> <i>Chairs: Yelena Ginzburg and Katarzyna Mleczko-Sanecka</i></p> | ATC Courtyard Room A & B |

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| 16:00 - 16:15 | Intracellular iron deficiency in pulmonary arterial smooth muscle cells induces pulmonary arterial hypertension through endothelin-1 Samira Lakhali-Littleton - University of Oxford, United Kingdom | |
| 16:15 - 16:30 | Mitoferrin 1/2 Deficiency in Type 2 Alveolar epithelial cells aggravates pulmonary fibrosis Suzanne M. Cloonan - Weill Cornell Medical College, United States of America | |
| 16:30 - 16:45 | Iron regulatory protein 2 (IRP2) mediates resistive breathing-induced pulmonary inflammation Kostas Pantopoulos - McGill University, Canada | |
| 16:45 - 17:00 | A novel role for iron regulatory proteins in hematopoiesis Michael Bonadonna - German Cancer Research Center, Germany | |
| 17:00 - 17:15 | The role of hepatic transferrin in erythropoiesis Yingying Yu - Zhejiang University School of Medicine, China | |
| 17:15 - 17:30 | The iron-sensing receptor Tfr2 regulates osteoclastogenesis Ulrike Baschant - TU Dresden, Germany | |
| 17:30 - 18:00 | Meet the Master Interview with Lawrie Powell with refreshments Presenter: Greg Anderson | ATC Auditorium Foyer Stage |
| 18:00 - 19:30 | Dinner | EMBL Canteen |
| 19:30 - 22:00 | Poster Session II (even numbers) with drinks and snacks | ATC Helix A & B |

Day 5 - Thursday 9 May 2019

| Time | Speaker | Location |
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| | Meet the Expert 5: DNA Biomarkers of Iron Disorders | |
| 07:45 - 08:45 | Domenico Girelli - University of Verona, Italy Dorine Swinkels - Radboud University, The Netherlands <i>Students / trainees only - Space is limited, pre-registration essential.</i> | ATC Helix Seminar Room A |
| 09:00 - 11:00 | Plenary 4: Presidential Plenary Session with Top-Scoring Abstracts Chairs: Ioav Cabantchik and Martina Muckenthaler | ATC Auditorium (streamed to ATC Courtyard Room A & B) |
| 09:00 - 09:20 | Iron powers adaptive immune responses to immunisations and influenza virus Joe Frost - University of Oxford, United Kingdom | |
| 09:20 - 09:40 | A novel iron chaperone complex delivers iron to the cytosolic [2Fe-2S] cluster distribution system Sarju Patel - National Institutes of Health, United States of America | |
| 09:40 - 10:00 | IRP mediated iron homeostasis in gut epithelial cells limits intestinal tumorigenesis Bruno Galy - German Cancer Research Center, Germany | |
| 10:00 - 10:20 | Steroyl-CoA Desaturase 1 protects ovarian cancer cells from ferroptotic cell death Suzy Torti - University of Connecticut Health Center, United States of America | |
| 10:20 - 10:40 | Delineating heme transport using HRG1-deficient mouse models Iqbal Hamza - University of Maryland, United States of America | |
| 10:40 - 11:00 | Ablation of hepatocyte Smad1, Smad5 and Smad8 causes severe tissue iron loading and liver fibrosis in mice Chia-Yu Wang - Massachusetts General Hospital, United States of America | |
| 11:00 - 11:30 | Coffee Break | ATC Auditorium Foyer |
| 11:30 - 13:00 | Concurrent Session 14: Hereditary Hemochromatosis Chairs: Pierre Brissot and Graça Porto | ATC Auditorium |

- 11:30 - 12:00 **Ancient genomics and the origins of the European genome**
Daniel Bradley - Trinity College Dublin, Ireland
- 12:00 - 12:15 **The structure-function analysis of ferroportin 1 (FPN1) gating residues sheds new light on the pathogenic mechanisms involved in haemochromatosis type 4A (HC 4A)**
Marlène Le Tertre -University Hospital Brest , France
- 12:15 - 12:30 **Iron overload associated osteoporosis could be favored by a low level of hepcidin and/or by an alteration of Mn or Mo metabolisms**
Olivier Loréal - INSERM, France
- 12:30 - 12:45 **Penetrance of hereditary hemochromatosis mutations in 450,000 people of European ancestry**
David Melzer - University of Exeter Medical School, United Kingdom
- 12:45 - 13:00 **Hemochromatosis: A lower illness with higher implications. A rare opportunity of following the natural history of an age related disease**
Graça Porto - University of Porto, Portugal
- 11:30 - 13:15 **Concurrent Session 15: Therapeutic Approaches**
Chairs: Kostas Pantopoulos and Michael Zimmermann Large Operon
- 11:30 - 11:45 **The evolution of intravenous iron therapy**
Carlo Gaillard - University of Utrecht, The Netherlands
- 11:45 - 12:00 **Evaluation of the intrinsic Hepcidin Idx™ to detect iron deficiency (Id) in adolescents and young adults**
Mark Fleming - Boston Children's Hospital, United States of America
- 12:00 - 12:15 **Oral iron therapy in predialysis Chronic Kidney Disease (CKD) patients has no adverse effects on the gut microbiome and circulating uremic toxin concentrations**
Dorine Swinkels - Radboud University Medical Center, The Netherlands

- 12:15 - 12:30 **Nanostructured iron compounds for nutrition: Isotope studies in DMT1-knockout mice and Thai women**
Hans Winkler - ETH Zürich, Switzerland
- 12:30 - 12:45 **An antisense Oligonucleotide (IONIS-TMPRSS6-LRX) targeting transmembrane protease, Serine 6 (TMPRSS6) induces hepcidin and reduces serum iron and transferrin saturation in healthy volunteers**
Y Paul Goldberg - Ionis Pharmaceuticals, United States of America
- 12:45 - 13:00 **SLN124, a GalNAc-siRNA conjugate targeting TMPRSS6, for the treatment of iron overload and ineffective erythropoiesis such as in beta thalassemia**
Ute Schaeper - Silence Therapeutics GmbH, Germany
- 13:00 - 13:15 **Characterization of hepcidin and microglia in an Alzheimer mouse model**
Andreas Popp - Abbvie Deutschland, Germany
- 11:30 - 13:00 ***Concurrent Session 16: Iron and Development***
Chairs: Elizabeta Nemeth and Nathan Subramaniam ATC Courtyard Room A & B
- 11:30 - 11:45 **Universal applicable serum hepcidin pediatric reference ranges: set point relative to body iron parameters changes during human growth and development**
Albertine Donker - Radboud University Medical Center, The Netherlands
- 11:45 - 12:00 **Iron transport to the fetus is controlled by a 'Selfish' placenta**
Veena Sangkhae - University of California, Los Angeles, United States of America
- 12:00 - 12:15 **Maternal iron excess and inflammation during pregnancy synergize to cause embryotoxicity**
Allison Fisher - University of California, Los Angeles, United States of America
- 12:15 - 12:30 **Iron and n-3 fatty acid depletion, alone and in combination, during early development provoke anxiety, hedonic and social dysfunction in rats**
Jeannine Baumgartner - ETH Zürich, Switzerland

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| 12:30 - 12:45 | Behavioral effects of excess ferrous sulfate or ferrous bisglycinate chelate supplementation on suckling rat pups Shasta McMillen - University of California, Davis, United States of America | |
| 12:45 - 13:00 | The regulation of cellular heme metabolism is crucial for deurodevelopment Deborah Chiabrando - University of Turin, Italy | |
| 13:00 - 14:30 | Lunch | ATC Auditorium Foyer |
| 14:30 - 18:30 | Free Time | |
| 14:30 - 15:30 | Business Meeting <i>for members of the International Biolron Society</i> | ATC Auditorium |
| 15:30 - 16:30 | Hemochromatosis Nomenclature Meeting | ATC Courtyard Room A & B |
| 16:30 - 18:00 | Joint European Federation of Associations of Patients with Haemochromatosis (EFAPH) and Haemochromatosis International (HI) Annual General Meeting | Large Operon |
| 18:30 - 19:30 | Social Hour with refreshments | ATC Auditorium Foyer |
| 19:30 - 21:30 | Farewell Dinner with Award Ceremony | EMBL Canteen |
| 21:30 - 01:00 | Party with Live Bands Opening Act: The Iron-Balls Headliner: The Wright Thing | ATC Auditorium Foyer |

Day 6 - Friday 10 May 2019

(International Haemochromatosis Patients Meeting)

| Time | Speaker | Location |
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| Time | Topic | Location |
|---------------|--|-----------------|
| 08:30 - 09:30 | What's New | |
| | — What is new in HH? Report from the Biologion Meeting 2019 (Prof. Mayka Sanchez) (15 min) | |
| | — Innovative approaches in HH-therapy (Prof. Pierre Brissot) (15 min) | ATC Courtyard A |
| | — Update of the EuroBloodNet activities (Prof. Graça Porto) (15 min) | |
| | — Discussion of three previous presentations (15 min) | |
| 09:30 - 10:15 | The Impact of Research on Diagnosis and Therapy of Haemochromatosis Patients (Prof. Paul Adams) | ATC Courtyard A |
| 10:15 - 10:35 | Coffee Break | Foyer Courtyard |
| | Haemochromatosis Arthropathy (HARI Group) | |
| 10:35 - 11:20 | — Update on HARI's projects (Dr. Patrick Kiely) (20 min) | |
| | — Outcome of ankle joint replacement (Dr. Axel Braner) (10 min) | ATC Courtyard A |
| | — Questions to previous two presentations (15 min) | |
| 11:20 - 11:35 | Haemochromatosis Nomenclature Update (Prof. Pierre Brissot) | ATC Courtyard A |
| 11:35 - 12:20 | Review of 2018 by EFAPH and HI Member Associations (F. Courtois – D. Prince) | ATC Courtyard A |
| 12:20 - 13:20 | Lunch | EMBL Canteen |
| | Updates and Future Projects | |
| 13:20 - 16:00 | — The future of EFAPH / HI: Towards a closer partnership (Howard Don, Ketil Toska) (20 min) | |
| | — World Haemochromatosis Week 2019 (June Saturday 1st – Sunday 9th) and 2020? (15 min) | ATC Courtyard A |
| | — Future projects continued & agreed actions (45 min) (Dianne Prince, Ketil Toska) | |
| | — Other issues | |

16:00 - 16:30

**Concluding Remarks (New presidents of
EFAPH and HI)**

ATC Courtyard A